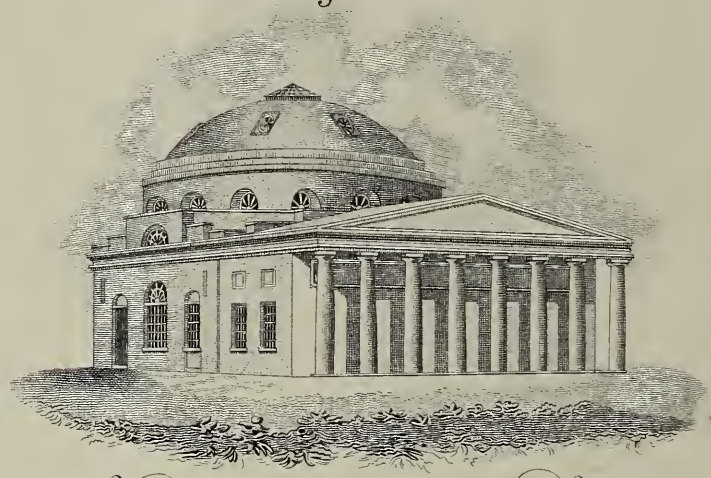
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Democracy
at the Crossroads*

By Edward James McCormick, M.A., M.D.
Toledo, Ohio



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■ The United States of America is, beyond all question of doubt, the greatest country in the world and the greatest country in the history of the world! Its future possibilities, if the course outlined by its founders is pursued, challenge the imagination of a modern Jules Verne! And why, we may ask, are these facts now beyond dispute? The answer is in the Declaration of Independence!

"We hold these truths to be self evident:

1. That all men are created equal;
2. That they are endowed by their Creator with certain inalienable rights;
3. That among these are life, liberty and the pursuit of happiness;
4. That to secure these rights, Governments are instituted among men, deriving their just powers from the consent of the governed."

Those who first dared the threats of ocean and the wildness of North American shores, came willing to sacrifice and give "their all" that their children might have outlet for initiative, opportunity, dignity, equality, freedom of speech, freedom of worship, freedom of thought, that they might escape persecution, serfdom and regimentation. As a matter of fact, they were actually fleeing from the totalitarian philosophy of their day as many Europeans are trying to escape it in our present day. They realized that there could be no progress or enduring success, collectively or individually, in lands where class hatred and discrimination existed, where the mentally and physically weak were frequently born to the sceptre and purple and where man was stripped of his likeness to God and relegated to the plane of the beasts of burden. They sought a government which existed for them, the people; they were tired of existing as pawns for a government, without right or privilege. History is replete with man's efforts to break the chains of slavery, and the advance of civilization to its present status is evidence of his success.

Our Debt

We Americans owe a great debt to those pioneer forefathers who recognized the "inalienable rights" given to man by the Creator and not by form of government and who realized that men are created equal. Because of them and through their efforts, we in America have gained a higher degree of social and political equality than the people of any other country. We are constantly striving for equality of dignity and opportunity and economic equality, remembering, of course, that, as Doctor Butler has said, "We cannot hope to shackle the more efficient that they may not outrun the less efficient."

So Democracy, a government "by and for the people" was born in America; fathered and

*Presented before the annual meeting of the Michigan State Medical Society, Grand Rapids, September 19, 1939.

mothered by sturdy, God-loving men and women, who then turned their hopeful faces and strong bodies in the direction of the setting sun to conquer the forests, the hills, the swamps, the rivers, the lakes and the plains. They advanced from the Atlantic to the Pacific and ear-marked for posterity the United States of America! A free country for free, unshackled people.

Our Blessings

Because of their desire for freedom and opportunity, because they suffered untold hardships, because they remembered God and His law and man's relationship to God, because they died on many battlefields to gain their and our "inalienable rights," because the Creator had fashioned for them a rich country, we, of America, control a large share of the world's gold; use a great proportion of the world's telephone and telegraph facilities, own our own homes, possess stocks and bonds and buy more insurance policies than the people in any other country or group of countries. Likewise, we Americans operate the greater percentage of the world's motor cars and, it has been said, the housewives of one single state, California, own and operate more modern household equipment than any country outside of the United States. So our schools and colleges have come to represent millions and millions of dollars and our educational systems, public and private, become superior to those of any other land and some of our states to have more and better elementary schools, high schools and colleges than are possessed by entire nations. Our universities and professional schools now lead the world. America's Cathedrals and Art Museums can fearlesssly challenge those of the old world. The sky line of New York City is a source of amazement to the educated European visitor. "See America First" is good advice, for nowhere under Heaven's canopy can its wonders, its advances, be remotely approximated. We are ahead of any country or group of countries in any department of necessity or luxury which one may care to mention. God has blessed us with fertile lands, with hills that are filled with gold and silver, with a great supply of timber, with coal and oil and gas. The climate in the United States is varied and one can pick one's own weather conditions. These things, and freedom of speech, of the press, of worship, and social and political equality, are yours and mine, because we live in a Democracy! Our engineers, our jurists, our writers, our financiers, our statesmen and our medical and surgical men, though young as groups, have in every instance walked as World Masters in their various vocations.

Medicine in America has been in the vanguard of advance under Democracy. Our medical schools, our medical centers, our great clinics, our hospitals, are now the envy of the civilized world. Those who have traveled in foreign lands in search of medical lore, know this to be true. The greatest advances in medicine in the last half century have been made here by our physicians and research workers. They have written the most brilliant chapters in disease prevention and therapy in the history of medicine.

In spite of these facts and with American Medicine at the head of the medical world, there are those who feel that the physician's rights should be taken from him—medical men regimented, and the treatment of the sick taken over by the government, the first step in Democracy's downfall and the beginning of the end of initiative and progress. This idea is based largely on the fallacious thought that medical service is not available and within the means of a large percentage of the people and the idea is constantly emphasized by self-seeking politicians, job hunters and others who are in some instances selfish, in others uninformed, and in still other instances desirous of promoting basic changes which would eventually bring to us dictatorship or, to say the least, wreck Democracy! It is safe to say that these individuals will not stop when medicine has been socialized.

Distribution of Medical Care

Those who have studied the medical situation know, however, that "the number of physicians in the United States is greater by approximately 19,000 than the combined number of physicians in Great Britain, Germany, Austria, France, Poland, Belgium and Holland, despite the fact that the combined population in these seven countries exceeds the population of the United States by 90,000,000." In 1886 there was one physician for every 662 persons in the United States, in 1938 there was one physician for every 786 individuals. In addition, there have been great improvements in transportation and means of communication. In physicians' and nurses' training and in auxiliary personnel and equipment, we Americans occupy a position of leadership in the medical world. We have recognized quality rather

than quantity. Medical standards and requirements in our country are exceptionally high by comparison. Well trained medical men have been distributed over our great land to the extent that in 1936 there were only 241 counties in the United States that had more than 2,000 persons per physician, which is a more equitable distribution than is to be found in the older and more thickly settled countries of Europe. This has been accomplished with an elevation of medical education standards for the protection of the public of our country against treatment by physicians who are inadequately prepared and gives assurance to all, throughout the land, of the highest type of medical training available in the world. It has been pointed out that trains, automobiles and airplanes today can bring patients a hundred or even a thousand miles for treatment more easily than the patient of a generation ago could be transported over dirt roads to a Doctor ten miles away and *yet the supply of physicians in rural districts is far better in the United States than in any country which boasts "State Medicine" or Government control.* The survey made by The American Medical Association, with the aid of State and County Medical groups, though incomplete on August 1, 1939, showed that 25 per cent of physicians gave free care to 3,000,000 individuals and rendered 2,000,000 hours of free care to hospitals and clinics. It has been estimated that each day the physicians of this country contribute more than 1,000,000 dollars in medical service or the staggering sum of 365,000,000 dollars a year in voluntary free service to those unable to pay. Every physician in the country has a part pay and a free clientele.

Standards of Practice

The elevation of standards in medicine in our country have progressed to a point where a physician must meet certain requirements before he can become a specialist in any field of medicine or surgery. There are now thirteen boards which examine prospective specialists and, if found sufficient in all requirements, certify him as proficient in his speciality. The so-called general practitioner today is a man who has completed high school, college, medical school and one or two years' internship and taken postgraduate work at intervals. If he desires to specialize, several additional years of apprenticeship and study are necessary. The medical man of today has spent more time and money learning his profession than any man in any other profession or business. The system of private practice in the United States has offered a desirable field to a larger number of individuals, in relation to the populatiton, to enter, than any country in which State Medicine prevails, and consequently we have more and better trained physicians for the population quota. Free choice of physicians makes it possible for the Doctor to be judged by his patients and to increase his practice according to his ability and his willingness to serve, and this system has gone further in the conquest of disease and the postponement of death, as shown by actual statistics, than the system in any country that has abandoned private practice.

Why More Hospitals?

From 1928 to 1938 there was an increase of 61,987 hospital beds in the United States. During this period the number of unoccupied beds increased by 8,919. A study of the distribution of hospitals shows that less than 3,000,000 persons throughout the vast area of the United States are further than thirty miles from a hospital registered by the American Medical Association. We can rightfully ask, therefore, why the proposed unwarranted expenditure of your money and mine for additional hospital beds when no real need has been shown? And why should the government be expected to become the competitor of the private hospitals which have been serving and struggling and sacrificing through the years? *In 1938 there were 132,454 empty beds each day in our general hospitals—if present construction trends continue, there would be 147,000 vacancies in 1942, but if the proposed construction program, now before our country's lawmakers, comes to pass, we would have 526,000 general hospital beds with a probable corresponding increase in vacancies. What a headache for our Community Chest Directors! As a matter of fact, what a headache for all of us!*

Much has been said about morbidity and mortality in states where the population has lower incomes, among so-called poorer people, and this has been advanced as an argument in favor of government medicine. *But no amount of physicians and building of additional hospitals will substitute for lack of food, clothing and housing. Give the people of these localities health education, proper and decent food, clean homes,*

toilet facilities and shoes and decent wages, and the incidence of malaria, hookworm and pellagra and other diseases will decline, Senator Wagner to the contrary nothwithstanding! Recent death rate statistics prove that despite our large Negro population, which in some localities has a death rate of twice the white population, we in America have been at the head of the parade. It is pertinent to observe that in Australia and New Zealand, which countries have for years had the lowest mortality rates in the world for the entire population and also for mothers and infants, those who have sought political and financial advantage from sickness insurance and government medical control have never ceased to fight to obtain it, and Australia, having spent $5,000,000 in preparation for its introduction, became convinced of its undesirability and early in 1939 the Government withdrew its support.

I tell you of America's Supremacy and Greatness and of Medicine's development to focus your attention upon the fact that under Democracy a free people have captured world leadership in all phases of human endeavor. To the shores of this land of ours have come men and women who have realized that here the rail splitter would be given equal opportunity to prove himself worthy of the highest office in the land. Initiative of the individual has not been curtailed and America is today the youngest, yet the greatest of countries.

Despite legion evidence of development, prosperity and world leadership, we now find Democracy and all that it represents threatened in many and devious ways and there is danger that the very medium which made us great in art, in science, in finance and in medicine, will be taken from us.

Communistic Tendencies

I have but to remind you that in our public school systems and in our great colleges and universities there are men and women who have cast God out of their hearts, who have turned their backs upon "Government by and for the people," and who are openly advocating changes in our form of government that, to say the very least, would bring us to the brink of Communism and Totalitarianism. Similar individuals have made their ways into City, State and Governmental agencies, they are holding offices in labor unions, stirring up strife and discord and doing everything possible to interfere with economic progress to the end that Democracy may be discredited. I have said many times that labor is the backbone of Democracy. We know that under Democracy, labor has made great strides and that the laboring man occupies a position in this country far above the plane upon which he is placed in any other land, but you know and I know that unless labor relieves itself of the services of Communistic racketeers the failure of labor is inevitable. The chains of regimented serfdom are likely to replace the full dinner pail and the machine in every garage. Recent investigations point to the so-called Workers' Alliance, an organization composed largely of W.P.A. workers, as being dominated by Communistic individuals who are sowing seeds of discord, stirring up class hatred and planning interference with all the orderly principles of government, preaching Communism to its members, opposing all the ideals of Americanism, and encouraging the workers to scuttle the very ship that has saved them. I can but remind you this evening that one of the leaders of this sort of thing in America has written in his book, "The revolution does not simply happen, it must be made." The Dies Committee has pointed out that documentary evidence indicated that "Communist leaders assumed great credit for the organization of steel, automobile, and other industries and the direction of the strikes which followed." "This Committee has established," one reads in its report, "on the basis of the Communist Party's own literature, that Communists are actively boring from within churches, schools, youth organizations and every other organization and institution into which they can find entrance." I feel that *they are boring from within as far as medicine is concerned.* All reports indicate that the largest of Communist front movements in the United States is the American League for Peace and Democracy, formerly known as the League Against War and Fascism. Second only to this organization is the Workers' Alliance. *Communism is definitely on the march in America.* Likewise, I would warn you that the godless philosophy which has worked its reign of terror in Germany, is rapidly penetrating the United States and that many Fascists organizations, disguised as patriotic and christian groups, are spreading a type of hatred and intolerance which is incubated on foreign soil and brought here to grow, and foreign dicta-

tors are using and will use every possible method to cause disintegration of Democracy in the United States of America. The future of dictators is in danger so long as a free nation exists marching on to greater triumphs! The German American Bund and the Italian Black Shirts have no place in the United States but they are here.

Can any sane American question the advance of Paternalism, of Socialistic tendencies and Communistic teachings? Who is there with the courage to state that socialized medicine is not a part of this type of philosophy? When Government takes over medical facilities and personnel, it is only a step to similar control of Dentistry, Law and Business. *Socialized Medicine forms the opening wedge, not only for the loss of initiative and progress in medicine, but the loss of initiative and progress in all other fields. It is sponsored largely by job seekers and politicians who know little or nothing of medicine but who desire to create another political football and build a greater stadium for the massacre of the hapless taxpayer.*

Whose Money?

We voters, whether Republicans or Democrats, must soon realize that genuine prosperity must come from the productive industry of the citizens of our Republic. The Twentieth Century Fund has said "that in the long run no Government can continue year after year to incur substantial deficits and to increase its debts steadily if it wishes to maintain its credit." It likewise states that the total government debts of all governments in the United States "are the largest that any nation has ever had." It is fallacious indeed to believe, as The Honorable Harry Byrd has said, "that a national debt is a national blessing and that recovery is born of debts and deficits." The proponents of the Wagner Bill have the courage to propose to appropriate over $600,000,000 for its purposes and it is likely that the cost will exceed even the report of the Technical Committee on Medical Care of the Inter-departmental Committee on Coördination of Health and Welfare Activities of the Federal Government, which estimates that the Wagner Bill, for the period 1939-1942, would require $1,700,000,000. It is entirely in the realm of possibility that the Wagner Bill program could double the present federal budget within the next decade. "Serious depression occurred in the summer of 1937," according to a bulletin of The Ohio State Chamber of Commerce, "and in the opinion of business and tax students this depression was chiefly caused by excessive tax burden imposed by the Social Security Act, together with other high federal taxes imposed upon business." Can the United States stand the shock of the Wagner program without another depression? The school child could answer that question!

Knowing that local medical facilities are adequate in the vast majority of all subdivisions, that local administration of health matters in the various states is to be preferred, and feeling that Federal interference is not needed and that all states can intelligently look after the medical needs of their indigent, and realizing that no adequate survey of supposed needs has been made, feeling that thousands of private institutions should not be forced to compete with government institutions, recognizing the fact that the great structure of Medicine in our nation would be destroyed and inferior service given to all the people, and resenting political domination and useless expenditure of government's funds, our money, and gigantic increase in the nation's debt —*believing that socialization of medicine is the first blow at the foundation of Democracy, we, as citizens and physicians, are in duty bound to condemn Senate Bill 1620, known as the Wagner Bill, or any similar bill designed to undermine medicine and eventually destroy our Democracy. Our system of Free Enterprise is at stake.*

It Is Your Fight

Every man and woman should give a part of his or her time each day to an interest in City, County, State and National Government. Democracy has and will continue to function if each of us will take the time and trouble to do his duty. Physicians must come to realize that, while they were born to heal, they must likewise do their share in the preservation, not only of the sacred traditions of medicine, but in the preservation of the rights of man. *Democracy in America is at the crossroads! Shall you and I permit the selfish, the unthinking and the un-American to guide her onto the road of Socialized Medicine in the direction of Totalitarianism and Communism or shall we take our places in the political picture and fight for De-*

(Continued on Page 23)

The Electrocardiograph

Its Clinical Value in the Small Hospital*

By Walter Merritt Bartlett, M.D.
Benton Harbor, Michigan

WALTER MERRITT BARTLETT, M.D.

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■ IT IS ONLY during the past fifteen years that it has become possible for the small hospital (under 100 beds) to own and operate its own electrocardiographic equipment. For this reason it is considered of value for us to report the results of our first year's experience in the use of this equipment in the Cardiological Service at Mercy Hospital, Benton Harbor, as an aid to other small hospitals interested in improving the service rendered to the community.

Mercy Hospital serves a community of approximately 25,000 people. There were 1,621 admissions during the past year. During the first year of our electrocardiographic service we recorded 129 electrocardiograms. Nearly all of these records were taken on patients referred to us by doctors on the staff of this hospital, and, as is expected, many of the older doctors were slow to take advantage of this new cardiac diagnostic service. Thus, during the first several months few records were taken, but during the last six months of the year fifteen to thirty cardiograms were recorded each month.

An analysis of this group shows that 327 electrocardiographic diagnoses were made in this series and that 92 per cent of the records showed the presence of some pathological change from the normal electrocardiogram. These changes varied from very slight myocardial damage to some serious form of arrhythmia or conduction disturbance. In 86 per cent of the cases examined various degrees of myocardial damage were found to be present. These cases represented a fair cross-section of hospital practice as far as age groups were concerned, but, by and large, cases referred were only those in which cardiac disease was manifested by the clinical condition of the patient. The majority of the cases were among patients beyond forty-five years of age with definite cardiac symptoms. Forty per cent of these cases could not have been accurately diagnosed without recourse to the use of the electrocardiograph equipment. It need not be pointed out that any instrument which can increase the diagnostic acuity of a hospital service by 40 per cent is a good investment for any hospital or medical clinic.

TABLE I. CLASSIFICATION OF 327 ELECTROCARDIOGRAPHIC DIAGNOSES SHOWING NUMBER OF CASES IN WHICH THE ELECTROCARDIOGRAM WAS ESSENTIAL.

Pathological Condition Present	No. of cases so diagnosed by Ekg	No. of cases where Ekg was essential for diagnosis
Myocardial Damage	111	0
Left Axis Deviation	66	0
Coronary Artery Disease	44	44
Delayed A-V Conduction	10	10
Auricular Fibrillation	6	6
Sinus Tachycardia	17	17
Sinus Bradycardia	2	2
Sinus Arrhythmia	8	0
Premature Auricular Beats	5	5
Auricular Hypertrophy	12	12
Auricular Flutter	2	2
Bundle Branch Block	3	3
Ventricular Extrasystoles	10	10
Acute Coronary Occlusion	12	12
Sinus Arrest	2	2
Intraventricular Heart Block	2	2
Right Axis Deviation	10	0
Myocardial Exhaustion	5	0
TOTALS	327	127

It is quite likely that some of the cases showing myocardial damage, right or left axis deviation, et cetera, might not have been recognized clinically but in this critical review we have not included these among the cases where electrocardiography was essential for diagnosis. Thus eliminating these cases we find that the cardiogram was necessary in 40 per cent of the cases.

We have found during this first year's experience that the electrocardiogram is most useful in the differential diagnosis of the various types of arrhythmia; that it is invaluable as an aid in the appraisal of the cardiac condition in patients contemplating major surgery, and that it may be life-saving in importance in the differential diagnosis of acute coronary occlusion from acute abdominal or pulmonary conditions. We feel that every patient presenting cardiac symptoms

*Read before the monthly meeting of the Clinical Staff of Mercy Hospital, Benton Harbor, Michigan, April 11, 1939.

should have the advantage of electrocardiographic service, not only bringing the doctor's attention to cardiac conditions that are undetectable on physical examination, but also to assure patients suffering with cardiac neuroses of the integrity of the heart they question.

We recommend the use of this equipment most explicitly in patients with substernal, precordial or upper abdominal pain of sudden onset and in cases where sudden myocardial insufficiency becomes manifest. It is quite as essential when the pulse is intermittent, irregular, persistently rapid or slow. We feel that every case of rheumatic fever should be followed routinely by serial electrocardiographic records. Similarly it is most essential for good therapy to obtain electrocardiographic evidence of the effect of cardiac drugs in the routine treatment of cardiac patients.

We have found that quite often in hospital patients in whom diagnosis was uncertain, presenting vague symptoms of dyspnea on exertion, intermittent cyanosis, vague pains in the chest, anemia, mental confusion, sweating, fever of undetermined origin, indigestion, edema, vomiting or pallor, that the electrocardiogram was a distinct aid in uncovering the underlying pathologic changes.

Conclusions

1. The results of the first year's use of electrocardiographic equipment in a representative small hospital are reported.
2. The value of electrocardiographic service in the small hospital is discussed.
3. It is shown that 40 per cent of cardiac conditions presenting themselves in the small hospital require electrocardiographic tracings for accurate diagnosis.

Democracy at the Crossroads

(Continued from Page 21)

mocracy, the very soul of American greatness and leadership?

Material for this paper was gathered through the following sources, for which acknowledgment is made:
1. The Bureau of Medical Economics of The American Medical Association.
2. The Report of The Special Committee on Un-American Activities, known as The Dies Committee.
3. Bulletin of The Ohio Chamber of Commerce, May 16, 1939.
4. Letter of The Honorable Harry F. Byrd of January 14, 1939, appearing in *The Congressional Record*.
5. Previous speeches and articles by the author.

Adolescence*

By Bert I. Beverly, M.D.
Chicago, Illinois



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ADOLESCENCE is the most interesting and, in many respects, the least understood period of life. From a medical standpoint, the adolescent was the forgotten patient until ten or fifteen years ago. Physicians, primarily interested in surgery, internal medicine or obstetrics and gynecology, have an adult viewpoint and, consequently, are more interested in the conditions of mature life. Since adolescence is a period of growth and development—the continuation of childhood—it properly belongs in the field of pediatrics, and it now commands the interest of those physicians primarily interested in childhood.

Some individuals consider adolescence from the end of infancy to adulthood, others from puberty to adulthood. In this discussion it will be considered as that period of life beginning with the physiological changes incident to puberty and ending with the beginning of adulthood or maturity. It must be remembered that there is no sharp line or period of demarcation between different periods of life. The life cycle is a continuous process and the various changes merge into one another.

At adolescence we see further unfolding or developing of life's patterns, with both physical and mental changes. Growth at this period may be rapid or slow; it begins at different chronological ages in different individuals, races and climates. This variation in rate and time of development gives rise to problems in the mind of the individual as well as his parents, teachers and community. In this paper we will describe some of these problems—especially those in the minds of boys and girls at this age.

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*Presented at the annual meeting of the Michigan State Medical Society, September 19, 1939, Grand Rapids, Michigan.

Behavior Changes

The first signs of approaching puberty and adolescence are changes in behavior. These changes may be rapid and the behavior is usually paradoxical in nature. There is an increased sensitivity to either pleasantness or unpleasantness; one sign of this is observed in their frequent blushing. Increased irritability, tantrums with little or no provocation may be encountered. Attention in school may become poor. Childhood interests give way to new ones. Younger children are no longer tolerated as playmates. There is alternating cleanliness and slovenliness. The boy voluntarily (mother cannot believe her eyes) takes a bath, brushes his teeth, washes his neck and ears, combs his hair, and for the first time in his life wants a suit of clothes. He dresses in the most advanced fashion and shows a temporary interest in girls. After a couple of days, however, he goes to the other extreme. He does not take a bath for a week or two, and wears his oldest clothes. Girls behave in a similar manner. They apply bright red nail polish, lipstick, have manicures, pedicures, demand many new dresses and several styles of shoes. Then after a few days of precision in behavior, cleanliness and dress, they go to the opposite extreme and may not even wash their necks for two weeks. Why?

Adolescence is the period during which the little savages grow up and slowly take on the characteristics of adults. It is the period during which the child attempts to develop an adult type of thinking and to conform to the rules and regulations of society. Parents can now be told, "If you will wait a few more years, your children will be doing the things you have been afraid they would never do, and will stop doing the things which have disturbed you for many years. All too soon they will be grown up." They try, find it too difficult, think, "I don't care," or "What's the use," and give up. They try many, many times over a period of several years before they are successful. That is the reason for the paradoxical behavior and extreme attitudes. All this implies emotional growth.

Physiologically, adolescence is a marked exaggeration of sex impulses; emotionally, it is characterized by the development of sex attraction. Boys become interested in girls, and vice versa. When this level of emotional growth is reached, the individual sees himself as others see him for the first time. He is now aware of social norms. Within a few months he is overwhelmed by the complicated demands of society. All of the terms he has been hearing for many years, such as honesty, justice and charity, now have real meaning for the first time in his life. They would mean more if he had not been nagged and threatened about them for so many years, and if he had not developed so many resentments and such a sense of guilt because of his inability to meet adult standards. Nevertheless, all adolescents recognize social demands and make an effort to accept them.

During this period of growth, and while the boys and girls are trying to grow up and adjust to the ever more complicated social system in which we live, they are confronted with many problems. The solution of those problems is essential to a successful adjustment in life. We wish to emphasize before discussing them, and point out frequently while describing them, that their seriousness is greatly influenced by the attitudes and methods of management which have been used during childhood. From the beginning of adolescence through life, the results of the various attitudes taken towards children during their childhood manifest themselves. During the first years of life you can rear children almost any way you like. They will nearly always get along fairly well. If someone objects to your methods you can say, "My children are getting along as well as yours," and it will be true. They will do well until they reach adolescence or later. But what kind of adults will they be? Let us see what happens during adolescence. What are the problems?

Physiological Changes

The physiological changes incident to puberty manifest themselves between nine and thirteen years of age. Some girls, for instance, menstruate at nine and a half years of age; others not until they are sixteen years old. Physiological changes usually go on for at least a year before menstruation begins. The changes may be very rapid or slow—the child reaching puberty in a few months, or only after several years. The close relationship between the physical, physiological and emotional changes must be kept constantly in mind in order to know what to consider as normal reactions. More than any other time of life, during this period of growth, the chronological age of the child cannot be used as an

accurate index of normal expectant growth or behavior. A child of nine may be more mature than one of thirteen. The interests of the individual, which are influenced greatly by the level of emotional growth, may be those of the average nine year old child, even though he is actually fourteen years of age. These marked discrepancies between the age of the child and the physical and emotional growth are seen more often in girls than in boys. A fourteen-year-old girl who has no interest in boys and prefers to play with dolls may be normal in view of her physiological development. On the other hand, the ten-year-old girl may show interests usually associated with girls much older.

The rapidly growing adolescent boy or girl fatigues easily. Many high school students are too tired to study at night. *Strenuous athletic programs in high school are not desirable and sometimes injurious. College athletic directors have pointed out the harm that is sometimes done to high school students who have been urged to train too hard in order to break records. It is difficult for high school coaches to decide betweeen the best program for their athletes and the demand for championship teams. Their position often depends more upon the winning of games than upon the physical development of the students.*

This age is attended by changes in resistance to infection. There is an increased resistance to the common cold. Parents can be assured that the frequent colds of their children will disappear when they are nine or ten years of age. There is, on the other hand, a decreased resistance to tuberculosis. There are changes in surface temperature. The adolescent who does not want to wear heavy clothing does not feel cold, and is only trying to be comfortable rather than stubborn.

Sex Problems

As previously stated, adolescence is characterized by a marked exaggeration of sex impulses and the development of sex attraction. One vital problem, therefore, has to do with an adjustment on a sexual basis. Sex impulses are stronger than at any time in life; society demands that they be controlled. The difficulty in making this adjustment depends, in part, upon the previous training of the child and the attitudes which the parents have taken towards the subject. The importance of early training can be indicated by describing some of the common attitudes and methods used by parents.

Most children receive their first formal instruction in sex matters when they are about four months of age. At this time the baby is old enough to grasp objects. When undressed, he gets his hands below the umbilicus and often grasps the genitalia. Mother pulls his hands away, frequently gives them a slap and with an angry warning finger says, "Naughty, naughty." Long before the child has any conception of sex, he is conditioned against it. In his mind it is associated with anger and fear of mother. This is commonly mother's first anxiety about the future of her child. The frightening process continues. When the child is old enough to understand, he is taught that it is dirty and bad to touch himself. When he is three years old and intense curiosity characterizes his thinking and he asks innumerable questions, his curiosity is first about his own body. When he asks questions which are associated with sex in the mind of the mother, he is usually given to understand he must never talk or think about such "terrible" things. Many children are further given the impression that if they enjoy sex thoughts and feelings it is a sin. When the child reaches adolescence and sex impulses are strongest, these normal feelings, thoughts and wishes which are physiological in character and instinctive in nature are, in his mind, dirty, bad, wicked, will make him a weakling and "drive him crazy." Could there be any stronger mental conflict? This furnishes one of the most difficult mental problems to be solved.

Some children are given little sex information by their parents. They are scared during infancy and their questions ignored. They are instructed by other children and use their imaginations. Their information is usually wrong and of a frightening nature. One hears much discussion as to whether sex information should be given children. Those who take the negative side are usually guided by strong personal prejudice and do not know what goes on in the minds of children. The fact is that all children get sex information. By refusing to give children accurate information, the child is forced to learn from other children and to guess. With all of the progress in education in this "age of enlightenment," the same attitudes towards giving sex information to children commonly prevail today as they did centuries ago. Von Helmholtz, the great physicist

and physiologist, wrote, in 1877, that the theoretical inquirer "may consider ancient prejudices to be interesting and pardonable, as remains of poetic romance, or of youthful enthusiasm. To one who has to contend with the hostile forces of facts, indifference and romance disappear; that which he knows and can do, is exposed to severe tests; he can only use the hard and clear light of facts, and must give up the notion of lulling himself in agreeable illusion."

A serious problem came up in an exclusive private school. An eighth grade boy and girl were overheard discussing sex matters. What disturbed the school authorities most was the girl's reply to their admonitions. She said, "Why, that is all we talk about." The head floor nurse at a well known children's hospital complained about two twelve-year-old boys. She said, "They are terrible and I just can't stand them." The source of her aversion towards them was her overhearing them discussing sex. Another head floor nurse at the same hospital said she "gave a child a good talking to" when she saw him touching himself. The head of another well-known private school would not accept a pupil who had been in a boarding school "because they all know those terrible stories." The superintendent of a large orphanage expelled a fourteen-year-old girl who asked questions about sex from one of the supervisors. These individuals, all "specialists," who had worked with children for from five to forty years, did not know that sex interest and problems are foremost in the minds of adolescent boys and girls. Their personal prejudices, which they refused to recognize, disqualified them for work with children.

A sixteen-year-old girl was referred for examination because of abdominal distress and difficulties in school. Her mother warned me in advance that sex matters should not be mentioned as she was positive her daughter "had no problems of that kind and never even thought about such things." The mother's wishes were respected; I did not mention the subject. The girl, however, insisted on talking about it as it was her chief problem. She described "sessions" with girl friends when all phases of the subject were discussed. Much of her information was wrong. These erroneous impressions, together with fears which had developed in earlier childhood, part of which were implanted by the mother, accounted for the girl's difficulties.

Anyone who is working with adolescents encounters sex problems. Those who do not encounter them do not have the confidence of the boys and girls. It should be obvious that the seriousness of the problems is partly determined by the attitudes of parents towards the subject. Some fears of a sexual nature are unavoidable, but the parents who enjoy the confidence of their children can learn about these and then straighten them out.

These problems bring up the whole question of sex hygiene, which we have not the time to discuss. It is obvious that sex instruction must begin with normal attitudes of parents and be carried on primarily in the home. I am sure that children can be taught all that is known about any subject and sex is no exception. If the child has been allowed to grow up and develop self-confidence and habits of self-reliance, he will use this knowledge and assume responsibility for his behavior. In this way, the boy and girl can be spared the psychological maladjustments emanating from fears about sex. At the same time the danger of abnormal sex behavior and promiscuous experiences with their sequelæ (venereal disease) will be reduced to a minimum. It is only through adequate teaching and the development of self-reliance that we can hope to solve these major personal and social problems.

Independence

A fourteen-year-old girl said: "I don't want to be bossed by anybody. I get satisfaction out of talking back, if I do get a spanking—it makes you feel better." She stated that she had resented "being bossed" since she was twelve years old. She began to menstruate at thirteen years of age.

A brilliant twelve-year-old boy said to his father, "Pop, you know I am grown up. From now on I am going to do as I please. Neither you nor anyone else can make me do anything. Now, what are you going to do about it?" He laughed as he made this statement, but back of this superficial display of humor one could see the determination of all his ancestry. In these statements one should understand the second problem in the minds of adolescent boys and girls. When this stage of growth is reached, they feel grown-up. Independence becomes a major need and a vital issue in their minds. From this time on throughout life independence is one of the

prime goals. The normal adolescent will go to great lengths in his effort to obtain it.

How should a parent answer the above boy? Few children would have dared express their demand to their parents. A large percentage of parents, especially fathers, would say, "As long as you live in this house, you will do as you are told." When this story was told to one otherwise well educated father, he said, "If a child of mine should say that to me, I would knock him cold." The boy could have been told, "You get that notion out of your head. You go out and clean the car and mow the grass, or I will show you who is the boss here." Since the father was stronger than the boy at the time, it would have been easy to support the order with force. But can parents force children, even at this age, to do the important things in life? Can a boy or girl be forced to go through school? Can they be forced to study? Can they be kept from getting into serious difficulties outside the home, by the use of force? The obvious answer to all these questions is "no." Attempts to force them to do important things or, what is worse, the unimportant ones, only leads to resentment and increases the danger of serious rebellion.

The father answered the above boy like this: "Why, that is fine. You are grown up and can do as you please. Of course, you are a part of the home and are on the same basis as the rest of us, and I know that you will be willing to do your share. You are a smart boy and know as well as anyone else what to do. I am glad you are grown up, because that relieves me of responsibility. I used to feel responsible for you when you were little. Now I do not have that responsibility and do not have to worry about you."

The answer to this statement brought out the corollary to the problem of independence. The boy replied, "But, I have the right to come to you for advice." Adolescents are confused over their problems and their future. They do not have sufficient self-confidence and self-security to be entirely self-reliant and stand wholly on their own feet. They want advice. They usually go to everyone but their parents and teachers for it, the two groups who should be best able to advise them.

We said that adolescents want advice. That is not entirely true. They want to go to someone in whom they have confidence in order to "talk things over." Like adults, they usually do not want anyone to tell them what to do. It is impossible to tell anyone what to do. Everyone must decide finally for himself. Much harm is often done by those who, under the name of psychology or otherwise, try to solve people's problems by telling them how they should think, feel and act. It is of great help, however, to talk things over with someone in whom you have confidence. Sometimes it is of help to have the possibilities pointed out to one. That is what the adolescent boy or girl wants most. They can solve their own problems, and almost invariably arrive at wise conclusions. At this age, even more so than during the earlier years, "parents are fools when they try to play God."

Some adolescent boys and girls get into difficulties after they have obtained the independence which they demanded. The reason for this is obvious when one has studied their personal histories. These are the ones who have not had an opportunity during childhood to develop self-reliance and habits of responsibility. Had they been properly reared, they would have been given an increasing amount of independence year by year; they would have been able to meet difficult situations and adjust to them; they would have learned what to do with freedom and independence during the years when mistakes were less serious; they would have been prepared for adolescence gradually and then no special change in attitude would have been necessary when they reached that age. But having been kept dependent and protected and never having met situations alone, they do not know what to do with independence when they get it.

Heterosexuality

The third problem found in the mind of the adolescent is related to the two problems just described. It has to do with weaning. This period of normal emotional growth is characterized by an adjustment on a heterosexual basis. During childhood, homosexual interests and activities predominate. The boy is primarily interested in himself and other boys. He likes his gang best and cares little about girls. At adolescence, however, he should slowly give up his satisfaction in homosexual interests and learn to enjoy the opposite sex. (Homosexual in this connection means the normal interests which children of the same sex have in one another; it does not indicate abnor-

mal sex practices.) Affection should be transferred from the parents to individuals outside the family. This step in emotional growth is essential to the future happiness of the boy or girl; it is more important than high grades in school.

The age and degree of interest in the opposite sex varies with the time of onset and rapidity with which the physiological changes underlying maturation take place. A troubled mother came for consultation because of the behavior of her fifteen-year-old girl. "She is boy crazy and no longer satisfied with anything we do in the home. The happy home life that I have always wanted is constantly upset because she does not want to do what we do. She walks home from school with boys every day. She wants to go to dances and likes only mixed parties. She is not a bit nice at home any more. What do you think is the matter with her?" This mother was describing a normal girl who was growing up in exactly the right way. If she had been satisfied to remain at home, an obedient, "nice" girl, she would have been a problem. She should give up her contentment with her parents, assert her independence and transfer her affection to the opposite sex. Every encouragement should be given her attempts to accomplish this change.

Emancipation

The difficulty which boys and girls have in becoming emancipated from their parents and making a heterosexual adjustment is determined, to a large extent, by the attitudes of parents and early training. A mother came for consultation about her son, who was a sophomore in high school. The early history was important. John was a very good boy. He was clean, mannerly, respectful, obedient and truthful. These characteristics indicated several things. The mother was a very clean, particular, determined individual. She was efficient in her home. John was trained to the toilet before he was five months of age. She insisted on obedience and the truth from the beginning. In other words, John was "broken." He was so scared of his mother and so conditioned to yield to her will that he never had any fun, independence or originality. He was too attached to his mother emotionally. There were minor difficulties in the eighth grade, but the mother "was not worried at all about him because he had always been such a good boy." During his first year of high school he received low grades. In the second year he began failing in school work. He had gradually become more careless, indifferent and irritable. Complaints from the teachers increased. He was sullen, inattentive, and careless in school. The mother said, "I can't understand him or do anything with him. I can't understand what has come over him. The other night I went in the living room and said, 'John, dear, come to dinner.' He said, 'Tend to your ——— business and get out of here,' under his breath and I think he called me a terrible word. He looked at me as if he wanted to kill me." She properly interpreted his looks. What was the matter with this boy? He was at the age when sex impulses and wishes are strongest. Sex impulses and wishes are biologically and normally directed towards the member of the opposite sex whom the individual likes best. In John's case, who was that individual? Obviously, his mother. Such thoughts and feelings are disturbing. If the attachment is too strong it is the source of confusion, self-criticism and resentment. When these facts are understood, it is not difficult to perceive why John had temper outbreaks and mental confusion which made it impossible for him to study. It took a year, with psychiatric help, to straighten out his problems.

A sixteen-and-a-half-year-old boy, with a similar personal history, said, "For years I wanted to tell her where to get off at, but did not dare until last fall." His resentment and irritability towards his parents, especially his mother, dated from twelve years of age.

What should one tell the parents of boys and girls with problems of this kind? They must recognize that their temper tantrums are serious. Adolescents have little self-control or ability to reason at these times. The less one says to them during the tantrums, the better. Parents must further be made to realize the significance of the rebellion and its causes. They must understand its desirability even though it is unpleasant. If John had not rebelled against his parents and teachers, his chance of making a good adjustment in the world would have been poor.

Both of the above boys were coöperative and willing to discuss their problems. With sympathetic help they were able to analyze their mixed emotions and to rationalize them. They had not understood the reason for their behavior or their inability to study and do school work.

At the end of a year, they were both fairly well adjusted and able to do passing work in school.

The old adage that "The boy who is good to his mother during adolescene will be mean to his wife" is true. Why? What happens to the boy who continues to be his mother's agreeable companion? He does not get weaned. He does not transfer his affections from mother to the opposite sex—girls outside the family. When and if he gets married, he will expect his wife to act and think like his mother. She will not be able to take his mother's place and will be criticized by him for not doing so.

There are several other aspects to the problem of emancipation from parents. One of them was described by a nineteen-year-old boy with an intelligence quotient of 1.40, who was getting poor grades in school and considered himself "very nervous." After I discussed his problems with him for many weeks, he came to the office one day with the statement, "There are two or three things I would like to do before I die." When asked for an explanation he stated there was the superintendent of the high school and several teachers he "would like to tell where to get off at." When asked what he had against them, he could think of nothing but that they told him "he was capable of doing much better work than he was doing." After further discussion he "guessed they were all right after all." Then he continued, "But there is one guy I would like to get. I just hope my old man tells me once more that I have got to do something and then lays a hand on me when I don't do it. I will knock him cold." The patient gritted his teeth as he finished. He then related how he had always been afraid of "the old man," and recalled several instances during early childhood when he had been severely beaten by his father. At a later visit, he suggested that his resentment towards the school teachers and officials was transference of his resentment towards his father.

It is a daily occurrence to find adolescents and adults who are still governed by fear of parents. They are afraid to do things which they logically believe they should do because "I would not be able to face mother," or "Father would not approve." These inhibitions to intelligent living often follow boys and girls through adolescence to the age of maturity. Unable to get completely weaned, in their own minds, they are handicapped throughout life.

The illustrations given have been of boys and girls who fortunately rebelled. It is far better that they use force in becoming emancipated from their parents than that they never get weaned. It is a hard time for parents and there is always danger that the children will get into conflict with the law, or into other difficulties, but future adjustment and success in life depend upon it. The more serious problem is often those boys and girls who are dependent and attached to parents and do not rebel. The following cases will be descriptive.

The Dependent Child

A nineteen-year-old boy of high intelligence was brought for examination at the suggestion of the officials of the boarding school he was attending. He was doing very poor school work, was disliked by the other boys, and reporting to the medical dispensary with vague symptoms of illness every two or three days. The school physician was never able to find anything in the way of organic disease. He was a tall, well-built boy, with no signs of physical illness. He became very resentful when it was explained to him that all tests indicated that he was not physically ill. Later he stated that his one wish was to go home and stay with his mother and father and he hoped he would become ill so this would be possible. He had no desire to continue in school and no desire to grow up and learn a trade or profession. He had frequent day dreams. In one, he was home ill, and his mother was taking care of him. The childhood history of this boy was very similar to the previously described cases. He was a very good boy, who never did anything wrong. He was "broken" at an early age and did not rebel, even at adolescence. He tried to take refuge in illness. Undoubtedly, his "headaches, feeling of tightness in his chest and weakness" were real to him (malingering is rare), but these symptoms were caused by his emotional conflicts.

A sixteen-year-old girl was brought for examination because of abdominal distress. She had never talked back to her parents. Her abdominal distress followed her own self criticism because "I had thoughts and feelings towards my parents, and sometimes my teachers, which no one should have." We see in these cases adolescents who are afraid to rebel. Their resentments and fears are commonly turned towards

themselves in the form of self criticism. These emotional disturbances give rise to alterations in the sympathetic nervous system. This is the reason for such complaints as abdominal distress, diarrhea, choking sensations, tightness in the chest, weakness and headache. If the individual is one who is apprehensive over illness, these symptoms are interpreted as signs of serious illness. The boy described above welcomed the signs of illness because it gave him an excuse to throw off all responsibility and remain dependent.

The boy and girl who are allowed to do more things for themselves each year and are, therefore, not tied to mother's apron-strings, or kept under father's thumb, slowly wean themselves from their parents. They are largely emancipated by the time adolescence is reached, and have little difficulty in making a successful heterosexual adjustment. Again, we see the effect of early training on the seriousness of adolescent problems and adjustment in life.

The "Bad" Child

Young children can be told they are bad and no good from ten to fifteen times a day and there is usually no serious reaction to the criticism. They go in another room, stick out their tongues at the individuals criticizing them, when they are not looking, say a few choice phrases under their breath, and go on their way. It makes little difference in children until they reach adolescence —until they arrive at the point of emotional growth when they see themselves as other see them. The situation then is an entirely different picture. Those who unfortunately have been reared under wrong management, by this time, will have been convinced that they are bad and no good; they will have felt that others consider them bad and no good; they will have been taught their normal thoughts, feelings and habits are bad. Then, their exaggerated feelings of sex, due to physiological changes at adolescence, increase those "bad thoughts," feelings, wishes and resentments; accordingly, they develop senses of guilt around their "bad" thoughts and behavior. This situation characterizes the fourth problem found in the minds of adolescents; namely, feelings of inferiority.

A fine fourteen-year-old girl was brought for examination because of frequent crying spells, nail biting, lack of friends and difficulty in studying. She gave one hundred and twenty reasons why she was bad and no good. She had forgotten many hundred additional reasons. This girl had never done anything wrong that was of any consequence. In reality, she was too good. In a woeful monotone, she gave her reasons: "Mother bawled me out for this; Mother bawled me out for that; Father said a nice girl never did this; Father said a nice girl never did that." Her parents were good people; as a matter of fact, they were very fine people. Her mother was recognized as a social leader in her community. She was very ambitious in behalf of charitable and social betterment organizations. She was also very ambitious for herself and for her daughter. Father was a splendid man, but, like the mother, too anxious for his girl to grow up and be "ladylike." Neither parent had any idea of what is normal for children to think or feel. They had no conception of normal behavior for children. They never really saw a child. They succeeded in making life so unhappy for their daughter that her personality was permanently distorted. No amount of psychotherapy could erase the harm of their fourteen years of training.

Severe self-criticism characterizes the adolescent mind. Recognizing his shortcomings in meeting social demands, having been convinced that he is bad and no good during childhood, without sufficient self-confidence or security in his own ability, or knowledge to take care of himself socially or economically, confused by the problems described, and disturbed by a keen sense of guilt, he not only believes he is no good, but also that he should be criticized and even punished. This self-criticism often leads to behavior which will bring punishment.

All adolescent boys and girls have feelings of inferiority. They vary only in degree. There is no such thing as a superiority complex. The egocentric, domineering, "know-all" type of individual is using that method to compensate or "cover up" his feelings of inadequacy. The outlook for this type of reaction is far better than for the individuals who become shut-ins, scared, teacher's pet type.

The four problems described above are present in the minds of every adolescent boy and girl. The seriousness of the problems vary, dependent to a large extent upon the attitudes of parents and methods of management during infancy and

childhood. Some individuals are more disturbed by one of the problems and others by another. In all cases the problems are interrelated.

Physical-Mental Handicaps

In addition to the four problems described, one finds other problems which depend upon the experiences and environmental characteristics of each individual child. Among these, are physical handicaps, insecurity caused by a broken home, adoption, and the rejected boy or girl. Individual fears acquired in early childhood are often the cause of serious conflicts. Gang activities and other environmental factors are important additional considerations.

Thus far we have described the immediate problems in the minds of the adolescents, which are brought about by maturation and its accompanying emotional growth. When we consider the adaptation of his personality as a whole to society on an adult basis, his problems may be approached from the physical, intellectual, emotional and ideological standpoints. Confidence in their physical ability to compete with others, general health, stature and attraction to girls weigh heavily on the minds of boys. Desirable feminine characteristics, such as size, weight, complexion, clothes, ability to dance, and other qualities which make them attractive to boys, are life's biggest problems to girls. Physical inadequacy, in the minds of boys and girls, is a major handicap. Their whole success in life may be prevented by physical handicaps which in themselves are not insurmountable, but have been made so important in their minds that their whole lives revolve around them.

The same attitude may be taken towards intellectual ability. All normal boys and girls want to learn and desire to excel in some intellectual pursuit. Their need for self-confidence, self-security and self-satisfaction demands it. Competition is keen, sometimes to the point of brutality. Those individuals who do not have the satisfaction of achievement in something, and it matters little what, cannot become well adjusted citizens. Their difficulty in finding "their place in the sun" is increased by fear of failure, inablity to meet the requirements of the school program, undiscovered hidden resources, and emotional problems which make it impossible for them to learn.

One of the most common reasons individuals do not do the things they are capable of doing is fear of failure. Their originality and self-expression have been suppressed; or their initiative, which is based on self-confidence, has not developed. These attitudes, which may be the cause of failure in life, have their origin in childhood. Throwing spitballs, slamming doors, poor manners, failure to learn rules of grammar, and forgetting the date of the Battle of Bull Run can surely be recognized as insignificant when compared to real problems in life. In order to help boys and girls with these problems it is necessary to help them understand their fears and to unlearn much that they should not have been taught in the first place.

Selection of a vocation is another essential for a successful adjustment. Progressive schools are doing a great deal to encourage their students to develop interests and to discover the kind of work in which they excel. It is possible to measure general ability by vocational tests, but one cannot find the emotional qualifications of individuals in that way.

Idealism of the Child

Idealism is usually uppermost in the normal adolescent mind. His standards of righteousness are higher than at any other period of life. This brings up the problem of social adjustment. Those who have difficulty in fitting into the social system in which they find themselves may develop so-called radical ideas. Unable to understand their own problems, they decide that there is nothing wrong with themselves, but the social system should be changed. It is this type of thinking that gives rise to the various "isms." Students should be given every encouragement to describe and write about their "ideal society." They should be given all the help possible in their efforts to learn about radical schemes. This will give them the best chance to work out their problems and, consequently, to accept the system which is of greatest value to all adults, rather than one designed in an attempt to solve their own personality difficulties.

Finally, a successful adult adaptation necessitates a solution of the problems involved in one's relationship to society and the universe as a whole. The "whence, whither and why" of life are serious problems common to all adolescents. Every individual should work out a solution of these problems which is satisfactory to him and acceptable to organized society; this constitutes

his religion and is his philosophy of life. If these ideals serve the particular needs of the individual, this phase of his adjustment is complete. Adolescents can be helped most with these problems by employing the same methods as those suggested above in considering social problems. Here, as in all phases of life, is the necessity for each one's working out the answer to his own questions. The task will be less complicated if he does not have to unlearn ideas and combat fears which were forced upon him during childhood, but which he now cannot accept.

End-Results

Generally speaking, adolescents who are having difficulty in making an adjustment (and all of them have difficulties varying in degree) react in one of two ways. They may become the anti-social, shut-in type; scared, considerate, mild and dependent. Or, on the other hand, they may react with aggression and possibly destructive tendencies. This latter group is often popularly described as lazy, no good, devils, peculiar and with other unfair, meaningless and harmful terms. As a matter of fact, this group offers a better prognosis than the former group. Everyone knows illustrations of "devils" who grew up to be very successful. There is no way of determining which youths will be most liable to solve their difficult problems. Many an individual who said, "John Blank will never amount to anything," has seen John Blank surpass him ten years later. George Bernard Shaw celebrated this idea in his play "The Devil's Disciple."

It is easy to understand why those who react with aggression have a better chance to successfully work out their difficulties. They respond to them by actively attempting "to fight their way through." Since they are making a real effort, they have a good chance of finding a solution. While they may take their resentments out on people, they try to prove to themselves and others that they are of some account, and, if in an environment that is at all sympathetic, usually make progress. It is easier to gain their confidence; they are usually anxious to discuss their problems. Even though they are commonly "telling the world" in their process of "talking things over," they have a good chance of thinking out their problem to a rational conclusion.

The adolescent boy or girl who causes parents little or no concern may present the most serious problems, from a psychiatric standpoint. Those individuals who do not express their fears and resentments, who harbor the strongest senses of guilt and who do not discuss their problems with anyone, are generally repressed, confused individuals and more liable to develop serious psychological maladjustments.

If we had the time, it would be interesting to consider the other common problems encountered in adolescents. Difficulties in school, discipline in the home, conflicts with the law and early neurotic manifestations. Briefly, we can agree that there is a reason for all behavior, just as there is a cause for all disease. Our first effort should be to search for the factors in the minds of the boys or girls and in the environment which are causing that behavior. Knowing this, we are in a position to scientifically help them in a solution of their problems and to make a better adjustment in life.

Summary

1. Adolescence is the period during which the child grows up, begins to feel and think like an adult and attempts to conform to the complicated social system in which he lives.

2. It is a period of rapid growth—physically and mentally.

3. Because of the marked physiological and emotional changes that take place, the boy and girl are confronted with many problems, the solution of which is essential to successful lives.

4. The seriousness of these problems is determined by the methods which have been used in rearing them up to that age.

5. There are four problems common to all adolescents: namely, sex adjustment, independence with its corollary dependence, heterosexual adjustment, and feelings of inferiority or inadequacy.

6. There are additional individual problems which vary with each boy and girl.

7. Because of these problems in the minds of adolescents, problems in adjustment result. These may manifest themselves as school problems, delinquency or early neurotic manifestations.

The "Head-Cold"

In Infancy and Childhood— A New Method of Treatment

By Meyer O. Cantor, M.D., and
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■ The form of treatment for "head-colds" in infants has been fairly well standardized. Nasal drops or ointments are almost universally used to relieve the nasal obstruction, due chiefly to the accumulation of muco-pus in the nasal passages, because these children are unable to blow their noses. The use of drops or ointments relieves the congested turbinates only for a short time and are of little value. Many mothers are instructed to swab out the vestibule of the nose, but it is obvious that such methods are futile.

In young children the sinuses are very shallow with ostia relatively wide-mouthed. As a result, any inflammation of the nasal mucosa becomes also an inflammation of the mucosa lining these wide-mouthed shallow sinuses; namely, sinusitis. This runs coincidentally with the rhinitis.

By the use of the simple method that we have devised, drainage of the infected area in the nose is possible and such is the keynote of treatment just as it constitutes the treatment of choice in other infected areas.

Suction alone will supply this drainage and adequately keep the nose clean of discharge and permit the free passage of air. In cases where the turbinates are markedly congested, a drop or two of a very dilute (0.25 to 0.5 per cent) ephedrine will prove of value as an adjunct. The suction technic is as follows:

1. A three-ounce aural syringe of fresh live rubber is used. An old syringe has lost its elasticity to a degree that makes it valueless.

2. The base of the bulb of the syringe is compressed by the thumb of the right hand with the first and middle fingers encircling the neck, forcing all the air out of the syringe.

3. The nozzle of the syringe is inserted into the nostril of the child and the pressure is suddenly released from the base. The size of the nozzle is such that it does not reach more than one-eighth of an inch into the nose and does not extend up to the inferior turbinate. When the pressure is suddenly released the live rubber base springs out, creating a vacuum within the syringe. The vacuum sucks the secretion from the nose regardless of its consistency. Using a little tact, the child can be made to enjoy this procedure as though it were a game. It is painless and aspirates the secretions with ease from the back of the nose. The syringe should be sterilized by boiling before use each time.

The advantages of this method of treatment are as follows:

1. It is simple.

2. It aspirates all the muco-pus and cleans out the nasal passages so that breathing is unobstructed.

3. Since the syringe can be easily sterilized before using there is no danger of continuing the infection by the use of soiled linen.

4. Erosions and ulcerations of the nasal septal mucosa do not occur as there is no pressure or friction as with the use of handkerchiefs.

5. Not only is the nasal passage effectively cleaned, but the muco-pus present in the shallow wide-mouthed sinuses is also aspirated.

THE PHARMACOLOGY OF THE BRONCHO-DILATOR DRUGS

By JACOB SACKS, M.D.
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The relations between chemical constitution and the modifications resulting therefrom in the action of the group of sympatho-mimetic amines was discussed from the point of view of their use in the treatment of allergic symptoms. It was pointed out how certain groups, such as hydroxyl, can modify the direction of effect and duration of action of the drug.

The actions on the central nervous system of such drugs as benzedrine, and on the peripheral nervous system of drugs like ephedrine, was also pointed out in relation to the effects of these actions on the usefulness of the drugs in the treatment of asthma, in particular.

It was also shown that certain of the drugs used have a purely sympathetic nervous system action, while others, such as ephedrine, also act directly on smooth muscle.

—Abstracted from *Transactions of Michigan Allergy Society.*

Neuritis

Some Observations*

By Henry W. Woltman, M.D.
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HENRY W. WOLTMAN, M.D.

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■ IN HIS ESSAY on arteriosclerosis, Sir Clifford Allbutt said that, owing to the comprehensive nature of the subject, he would turn over for inspection only a few stones. Neuritis is also a large subject, and touching, as it does, on almost every field of medicine, it becomes a matter of concern to every one of us. All I shall attempt is a general orientation and an effort to arouse your interest in a subject that is still beset with many problems.

We cannot now be delayed by a review of the gross or microscopic anatomy of nerves and their highly specialized endings. Nor can we tarry to recall the brilliant investigations that have revealed the extraordinary workings of the tiny chemical laboratories through which nerve impulses are mediated. No one, so far as I know, has ventured to estimate the number of miles of nerve fibers in the human body, but it must be very great. A cross section of a nerve usually reveals fibers whose diameters are of variable size. Generally speaking, the smaller fibers either belong to the sympathetic nervous system or they carry sensory impulses; the larger fibers usually transmit motor impulses. In the smaller fibers the speed of the nerve impulse may be as slow as a mile and a half per hour; in the larger ones, it may be as fast as 180 miles per hour. The smaller fibers are more susceptible to blocking out with cocaine, the larger ones to injury by pressure. This has a practical application since the type of neuritis caused by pressure is predominantly manifested by motor disturbances.

The term "neuritis" is often employed loosely, often, indeed, as though it were synonymous with "pain." Disease of any peripheral somatic nerve usually results in more or less prolonged disorders of sensation or motility or both, and use of the term should be so restricted.

Lying within an unstable organism which the nerves serve to keep in some degree of harmonious relationship with a hostile environment, the nerves are subject to injury from within and from without. Nerves pass over bones and ligaments, through fascial bands and muscles and by these they are often injured. Often, the physician knows too little about the occupation of a patient which may introduce certain hazards. Thus, the cause of a median neuritis may remain obscure until we learn that a man is a milker and not employed in the more usual pursuits of the farmer; a combined median and ulnar palsy may suggest that the patient is a corn husker or a foundry ladler.

Nerves exhibit a striking vulnerability to certain poisons, toxins and viruses. Especially liable to injury are the rootlets. Toward their distal ends, nerves taper like a trout line, divide and subdivide; this is another region of potential danger to them. It is often forgotten that nerves are well supplied by blood vessels, and that diseases of these vessels may quickly implicate the nerves. The nerves of some persons are more susceptible to injury than are the nerves of others. Thus, a patient who has arsenical neuritis may have little arsenic in the urine or hair whereas the friend who brings him may have ten times as much but not neuritis. On the whole, it may be suggested that neuritis of an individual nerve is generally due, at least in part, to compression or traction.

When it is considered that the diameters of some nerve fibers would have to be ten times as large as they are to be visible to the naked eye and that these fibers may be more than a yard in length, it is a wonder that everyone does not have neuritis. As a matter of fact, continuous degeneration and regeneration of nerves are occurring at all times.

*From the Section on Neurology, The Mayo Clinic. Read before the meeting of the Michigan State Medical Society, September 20, 1939, Grand Rapids, Michigan.

Regeneration

After a nerve has been sectioned, the entire distal segment begins to degenerate by the second day and by the twenty-fifth day all fat has been carried away. As early as the third day the distal end of the proximal segment shows signs of regeneration. Under favorable circumstances this proceeds at the rate of a millimeter per day, which makes it easy to estimate roughly the number of days that it will take the fibers to reach their destinations. Like a growing child this process cannot be hastened beyond a certain point. These growing fibers feel their way along the path of the degenerated nerve. Thus, it may happen that, at a bifurcation, the fibers become lost and proceed in the wrong direction. Those that should go to the lips may go to the eyelids or lacrimal gland, and those that should go to the eyelids may go to the lips. An almost infallible sign of a regenerated seventh nerve is a "winking" of the chin and lips whenever the eyelids close. This also happens when another nerve, such as the spinal accessory, has been anastomosed with the seventh nerve. The reeducation of regenerated nerves and muscles requires also an adequate complement of sensory fibers; otherwise the patient cannot regain muscular control.

Actually, according to experiments in the histogenesis of nerves, the phenomena of regeneration are probably not so smiple as I have implied. For example, some time after a sensory nerve has been implanted into a muscle, electrical stimulation of such a nerve will cause the muscle to contract. Although removal, in a tadpole, of that part of the medullary ridge from which nerve fibers proceed to a corresponding limb bud would lead one to expect that nerve fibers would not be found in such a limb, nerve fibers are actually found there. Such fibers have been seen to cross the midline from the opposite side. When nerves are grown in a stretched clot, the fibers follow the line of stretch and do not traverse planes of differing density. Doubtless these processes, whatever their ultimate explanation, are also at work when injured nerves regenerate.

Diagnostic Technic

It is safe to assume that you are entirely familiar with taking a history and performing an examination in such cases. Perhaps it may be in order to say that neuritis may be quite painless, and that paresthesias, when they occur, are persistent and cannot be "rubbed away." It should be noted also that marked anatomic variations and overlapping by adjacent nerves affect the pattern of an anesthetic area. In testing motility, the corresponding tendon or muscle should be palpated carefully and the patient should be instructed to carry out only the movement requested, since flexion of the fingers, for example, may be brought about by extension of the wrist, a so-called trick movement. When the amplitude of movement is limited, it must be remembered that this may be due to fibrosis of joints or ligaments and that comparatively power may be good even though the excursion is very small. The simple test of palpating the nerve, whenever this can be done, should never be neglected. Although there are many signs, tests and maneuvers for the detection of paralysis of individual nerves, short cuts should not take the place of the orthodox and more reliable methods of examination. Each case becomes a problem in itself deserving of the utmost care in clinical examination and judgment.

Examination by electrical means is especially helpful when the question of a hysterical paralysis arises. For practical purposes it need be remembered that only after the tenth day a severely injured nerve will respond to neither the faradic nor the galvanic currents and that the muscle so deprived of its nerve supply will fail to respond to the faradic current but will respond, in a sluggish manner, to the galvanic current. Thus, a muscle fails to respond to the faradic shocks because the duration of these is too short to be effective as a stimulus. Should regeneration fail to take place, the affected muscle, within a year or two, may also become insensitive to the galvanic current. Should regeneration take place, the return of electrical excitability may precede or follow the return of voluntary movement.

Treatment

Important in the treatment of acute neuritis is the avoidance of anything that accentuates the pain or the paresthesia. Rest and relaxation are essential and sometimes can be achieved best by splinting. The chief therapeutic agent is heat. Diathermy is commonly employed and it frequently makes the condition worse. Roentgen-

therapy often affords prompt relief. When a nutritional deficiency exists, the administration of thiamin chloride is urgently indicated and the dose should be high, 10, 20 or 30 mg. daily. This may be given intravenously at first. If indicated, thiamin chloride should be supplemented by other antideficiency preparations. Protein therapy and iodides may be helpful. Orthopedic measures, neurosurgical procedures and psychotherapy may be required. Assiduously to be avoided is the neglect that may lead to contractures. Massage, exercise and sinusoidal galvanism are contraindicated until the acute stage has subsided.

Brachial Plexus

There are more clinical pictures of neuritis than there are peripheral nerves. Thus, neuritis may be designated also by its clinical course, which may be acute, subacute or chronic; by its symptoms, which may be sensory, motor or mixed; by the part of the nerve affected, that is, a radiculitis, ganglionitis, funiculitis, plexitis, or a peripheral neuritis; by the tissue affected, interstitial or parenchymatous; by the distribution of the neuritis, that is, a mononeuritis, a mononeuritis multiplex, or a multiple neuritis; and by its cause, such as a toxin, a virus, a deficiency, a chemical agent or an injury.

We shall pass by a consideration of neuritis of the various cranial nerves and touch on some forms that can be dealt with more briefly. Commonly affected is the brachial plexus. Jackson rendered a real service to all of us when he said that the brachial plexus begins with five nerves and ends with five nerves. Lesions of the trunks and cords that make up a plexus are generally so complicated that they cannot be localized with accuracy and it is customary to refer to a case of brachial neuritis as consisting predominantly of involvement of certain spinal roots; for example, an upper plexus paralysis, when the fifth and sixth cervical roots are affected (which results in maximal disability of the upper arm), or a lower plexus paralysis when the eighth cervical and first thoracic nerves are affected (which results in maximal disability of the hand). A common cause of injury of the upper portion of the brachial plexus is downward thrust of the shoulder, as may happen during birth; when a rider is thrown on his shoulder from a speeding automobile; when a tree falls on a woodsman's shoulder; or when a boy runs his sled into a fence post. Avulsion of the lower portion of the brachial plexus may occur if the arm is jerked violently upward, as happens when it is caught in a traveling belt or when a mother angrily jerks the arm of her straggling child. Dislocation of the shoulder, compression by crutches (in patients who have not been instructed to carry most of their weight on their hands), compression by cervical ribs or the scalenus muscles and injury by tumors, inflammation and the edema of serum sickness are among the causes of damage to the plexus.

If the brachial plexus is found to be injured in a patient who has been returned from the operating room, one usually learns that the palsy is of the upper plexus type and that the patient is a woman. Failure to relax the straps at the wrists and the lack of adequately padded shoulder rests for the patient while in the Trendelenburg position are generally the causes. The plexus may be injured also during operations that require wide abduction of the arm; in such cases, traction of the nerves or compression by the clavicle is responsible. In a like manner the plexus may be injured during sleep, especially when a patient is made stuporous by heavy sedation. A moment ago I said that the brachial plexus ends in five nerves; thus, injuries of the brachial plexus may also be designated according to the affected nerve, such as the ulnar, radial or median, that gives to the clinical picture its dominant characteristics. The commonest single cause of brachial neuritis is trauma.

Nerves of the Arm

The nerve most commonly affected in the arm is the ulnar; when this nerve is affected, the injury is usually at the elbow. Of particular interest and importance are those cases in which the ulnar palsy is gradually progressive. When this follows fracture of the elbow it is observed twice as often on the left side as on the right, and it occurs four times as often among men as among women. The average age of fracture is 7.5 years and the average age at which the signs of a tardy ulnar palsy arise is 40 years. Progressive ulnar palsy may also follow arthritis of the elbow. This occurs twice as often on the right side as on the left and almost invariably occurs among men. In all of these cases, full extension of the elbow is usually impaired

and a firm, large nerve may be palpated at the elbow. Early transfer of the nerve to the anterior aspect of the arm is the therapeutic indication.

Ulnar neuritis also develops on a postural basis. It is frequently complained of by elderly, emaciated men who lie many hours on their back with their elbows resting on a firm mattress or who sit in a chair, the arms of which are not adequately padded.

Radial paralysis is most commonly related to fractures or their treatment. It is the nerve involved in Saturday night palsy and in bridegroom's paralysis. It may be injured by the careless injection of vaccines or camphorated oil. A purely motor form of radial paralysis, which generally comes on with a progressing inability to extend the fingers and is attended by atrophy of the dorsum of the forearm, is usually due to selective involvement of the posterior interosseous nerve. It appears to be related to the manner in which this nerve traverses the supinator brevis muscle, excessive use of which may injure the nerve. When the radial nerve has been damaged so severely that good results cannot be obtained by operation on the nerve, transplantation of a tendon or tendons may allow extension of the wrist and fingers and may restore to the arm almost full usefulness.

The median nerve is most commonly injured at the wrist, especially by cutting. A dislocated semilunar bone or arthritis of the wrist by pressure against the annular ligament of the wrist, may result in sudden or gradual loss of function of its peripheral branches. A supracondylar fracture of the elbow may result in immediate or delayed paralysis. If any doubt exists as to recovery of the nerve, exploration should not be delayed. This nerve may also be injured in the course of giving antecubital, intravenous injections. Neuritis of the median nerve may be attended with great pain and pronounced vasomotor phenomena. Even slight injuries may lead to the distressing conditions referred to as causalgia and ascending neuritis. Such an ascending neuritis may spread to nearby nerves.

Nerves of the Lower Extremities

With these remarks we shall pass on to consideration of the nerves that serve the lower extremities. A gradually progressing lumbosacral plexitis always is suggestive of the possibility of malignant infiltration. This applies also to neuritis of the femoral nerve, involvement of which is more common among men than among women.

The peroneal nerve is not uncommonly injured where it passes over the head of the fibula, and in slightly less than half of the cases in which injury occurs at this point, such injury is associated with the habit of crossing the legs at the knees. This condition is met with four times as often among men as among women and usually occurs in elderly, emaciated persons. To the hazards of the absorbing game of poker and the attendant practice of maintaining an appropriate fluid balance belongs this form of poker player's paralysis. The peroneal nerve may also be compressed or stretched if patients who are very ill lie on a hard or sagging mattress. Foot drop that is associated with peroneal palsy may also result from sitting in the squatting position, as gardeners may do.

Sciatic Neuritis

I know that you would not be misled if I were not to emphasize that so-called sciatic neuritis, which makes up 40 per cent of all cases of neuritis, may be due to many causes. Let me mention only a few of them: exogenous poisons, metabolic diseases, bacterial infections, malformations, tumors, trauma and vascular diseases. As the neurologist looks at neuritis of isolated nerves as a whole, he becomes impressed with the prominent place that trauma occupies as a cause. Therefore, trauma of the sciatic nerve or of the fourth or fifth lumbar or first or second sacral nerves or roots, from which the sciatic nerve takes origin, also should be represented prominently as a cause of sciatic neuritis. Some of the suggested causes include this possibility: large nerves passing through small foramina, asymmetry of the facets, arthritis of the facets, the occasional passage of the nerve through the pyriformis muscle, and a tense fascia lata. In this connection also may be mentioned sacralization of the fifth lumbar vertebra and propinquity of the nerve to the sacro-iliac joint. Just how important as a cause of sciatica any one or all of these may be is not known and there is only a scant possibility of ever determining it. It is known now, and beyond question, from actual inspection of the lesion and from the relief that has

been obtained so often after removal of the nerve-compressing mass, that herniation of a nucleus pulposus is a common and important cause. But just how often this is the cause probably shall never be known either, for in the less severe cases adequate investigation to exclude this possibility is not justified. In short, sciatic neuritis is usually only a symptom and as such it is deserving of painstaking analysis.

Let me sketch the symptoms of sciatic neuritis briefly, for they are well known. Pain in the sciatic distribution is almost invariably present. In half of the cases there is associated pain in the lumbosacral region. Flexion of the extended leg on the trunk generally accentuates the pain and flexion of the head on the thorax also may accentuate the pain. Coughing and sneezing are sometimes feared by the patient because of the pain they may produce. The pain of sciatica is accentuated by activity and is relieved by rest and usually the nights are more comfortable than the days. The complaint is generally one of several years' standing, but it lacks evidence of a gradually progressive disease. It is episodic in its behavior, and usually reaches its climax within about two weeks but on some occasions may reach it instantly. The slightest misstep or twist of the back may precipitate such a crisis, and the intensity of the pain may freeze the victim at the spot. There may be weakness, or a history of it, of the muscles subserved by the nerve that is involved. Such weakness is often abrupt in its onset. The corresponding Achilles tendon reflex is often reduced or absent. Sensation may be impaired and there is commonly tenderness, especially paravertebrally and over the sciatic trunk. An involuntary list of the pelvis may occur. The content of protein in the spinal fluid is often elevated. Of these symptoms, those especially suggestive of herniation of a nucleus pulposus are a long and episodic history, the sensation of something slipping in the back and the coincidental onset of a vicious lumbosacral pain, the sudden onset of palsy or loss of sensation and a recurrent or alternating list of the pelvis.

The treatment of sciatic neuritis includes rest, which may be supplemented by traction of the affected limb and a lumbar sling, the application of heat, the administration of anodynes, iodides and foreign protein, epidural injections, roentgen therapy and the removal of foci of infection. In stubborn cases manipulation may be tried. When the severity, chronicity and disability warrant taking more decisive steps, and when it is reasonably certain, from roentgenologic studies or otherwise, that a herniated nucleus pulposus or hypertrophic ligamentum flavum is present, laminectomy and removal of the nucleus or ligament by a surgeon familiar with this sort of procedure is the treatment to be preferred.

Etiology

Not to be forgotten as possible causes of neuritis are posture and occupation. These causes are not always obvious; thus, the impropriety of balancing one's head on one's hand, with the elbow resting on the table. This may result in such compression of the nerve as it skirts over the elbow that the result becomes a neurologic calamity, since partial paralysis of the hand may occur. In the case of the left-handed person it is, of course, the right hand that suffers.

Multiple involvement of individual nerves, or mononeuritis multiplex, among other conditions, may occur from pressure during unconscious states of long duration, trauma, carcinomatosis, periarteritis nodosa, neurofibromatosis, leprosy, leukemia and serum sickness.

Multiple peripheral neuritis is quite another story. The terminal portions of longer nerves especially are affected, usually by some toxin or in the course of an illness resulting in a deficiency. We expect and find paresthesias, objective sensory impairment, weakness and loss of reflexes in the distal parts of the extremities. A good example of multiple neuritis is that associated with diphtheria, in which case a local neuritis, usually of the palate, occurs early in the vicinity of the ulcer. Somewhat later, there may be a selective paralysis of accommodation and about six weeks after the initial illness, when the patient may already be indulging in athletic exercises such as swimming, the extremities may become involved and the patient becomes ill once more. There is still some mystery connected with this delayed appearance of the peripheral neuritis, for by this time the blood is well laden with antitoxin. Additional findings may include a high content of protein in the spinal fluid, but this only adds bewilderment to our confusion, and possibly the condition is chiefly one of radiculitis rather than

peripheral neuritis. At this point also may be mentioned briefly multiple neuritis with facial diplegia, or neuronitis, or Guillain-Barré syndrome. Generally, the weakness is more marked in the proximal segments of the limbs, the sensory disturbance is not so pronounced and there is characteristically a high content of protein in the spinal fluid.

An extraordinary amount of work has been done on the diseases associated with dietary deficiencies, and multiple neuritis also may be the manifestation of a deficiency, especially of vitamin B_1. Due to improper diet, usually associated with an excessive intake of carbohydrates, this form of multiple neuritis was prevalent in the tropics, where it received the name beriberi. Common also in the temperate climates, but for a long time not so recognized, beriberi may be associated with carcinoma of the stomach, alcoholism, pregnancy, hysteria and other disturbances that interfere with absorption of food and nutrition. Perhaps it is not altogether appreciated how abruptly patients may become disabled by a deficiency and how dramatic their recovery may be when vigorous and proper treatment is instituted. The generous administration of thiamin chloride is now regarded as a very important part of the treatment.

Neuritis of metabolic origin is represented by a sundry group in which tentatively we may include hypertrophic interstitial neuritis, recurrent neuritis, hematoporphyrinuric neuritis, the neuritis of diabetes and the neuritis of acromegaly. Diabetic neuritis may be secondary to arteriosclerosis and perhaps should be classified with the vascular types of neuritis. The acroparesthesias and pain sometimes encountered in association with acromegaly are probably not due to neuritis but may be secondary to vascular disturbances incidental to rapid growth. But there is sometimes an unquestioned neuritis, and it seems to be rather selective of the median nerve. It is probably the result of compression between the thickening structures of the wrist and the annular ligament.

Poisoning, particularly with the heavy metals and some of the organic solvents employed in industry, may result in severe forms of neuritis, the distribution and behavior of which are often suggestive of the particular agent involved. Lead neuritis is a well known example. Epidemics caused by poisoning with arsenic, such as the famous "beer epidemic" that occurred in the North and Midlands of England, in which thousands of persons were afflicted, have occurred at various times.

Finally, there may be mentioned the forms of neuritis incidental to vascular diseases such as arteriosclerosis, periarteritis nodosa, proliferative intimitis, and neuritis caused by refrigeration, exposure to radium and probably carbon monoxide poisoning.

In summary, we may review the groups of neuritis by referring briefly to a somewhat modified classification of Cobb and Coggeshall. The localized forms of neuritis include the mechanical and infectious types; the generalized forms include those due to viruses, bacteriotoxic agents, dietary deficiencies, metabolic disorders, chemical agents and vascular diseases.

HEMATOLOGICAL ASPECTS OF ALLERGY

By RAPHAEL ISAACS, M.D.
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The cell of especial interest in the blood in relation to the allergic state, is the eosinophil. Normally present in one per cent or less, the numbers may increase in (a) certain allergic conditions, (b) certain skin lesions, (c) lesions of mucous membranes, including parasitism, (d) diseases involving muscle destruction, (e) some types of leukemia. In acute pyogenic infections, the eosinophils disappear from the blood stream, except in these conditions. Tissue eosinophilia (local and general) may occur without their increase in the blood stream. In allergic individuals the bone marrow shows a generalized "eosinophilic transformation" in which eosinophilic granules appear in most of the leukocyte-forming cells, as well as in the "tissue cells" of the marrow. In these conditions atypical (so-called lymphoid) eosinophils may appear in the blood stream. Peripheral blood eosinophilia is not present in some stages of allergic phenomena, and the mechanism of the release of the eosinophils into the peripheral circulation is not clear at present. Peripheral leukopenia, with segregation of the polymorphonuclear neutrophils and the platelets in the deeper (abdominal) capillary beds is noted at certain stages of the "allergic response" to substances to which the tissues are sensitive.

—Abstract from *Transactions of Michigan Allergy Society.*

Strabismus

In Children*

By James Watson White, M.D.
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■ The causes of strabismus in children are so many and so varied that the decision of what to do to correct them depends on the variety with which one is dealing. Likewise the age of the child when operation should be advised depends on an exact diagnosis, as well as on the response to non-operative treatment.

Many cases of strabismus are congenital and depend on an underaction or overaction of one or more of the extra-ocular muscles. The congenital underactions may be caused by fibrous tissue replacing muscle tissue; to an anomalous insertion; or to some defect in the innervation. Many cases have a history of difficult or precipitous labor or of the use of forceps. In most cases a diagnosis can be made during the first few months of life.

The congenital anomaly of "Retraction Syndrome" is quite frequent and can be diagnosed at birth or, at the latest, when the baby begins to look about. It is characterized by more or less marked failure in outward and inward rotations, a narrowing of the interpalpebral fissure more marked in adduction, and an upward and downward turning of the eye in adduction. The affected eye is retracted in the globe from 1 to 5 mm. when the eye is in the nasal field, and it is this symptom that has given the name to the syndrome. The external and internal rectus muscles are found to be composed of more or less fibrous tissue, very characteristic to the feel when operating. Biopsy and a microscopic study has confirmed this. These cases are more frequent in females, and are more frequently unilateral and affecting the left eye. Either the normal eye or the affected eye may have the better vision and be the fixing eye.

No treatment, except surgery, is of any use. In well selected cases, the surgical results improve the appearance greatly; however, certain cases have a very bad prognosis.

Strabismus fixus is the condition having a short rudimentary internal rectus, which anchors the eye in the nasal field. The other muscles are usually normal in structure. These patients also should be operated on early.

Both elevators of one eye may be paretic. Any one or more of the extra-ocular muscles may be involved, either before or shortly after birth, giving rise to convergent, divergent or vertical strabismus, or to a combination of a vertical strabismus with either a convergent or divergent strabismus.

These cases are rarely improved by glasses or any form of muscle training. If glasses are given they are given to improve the vision only. Torticollis is a common symtom, and, when it is a true ocular torticollis, operation generally corrects the deformity and should be performed early.

Quite frequently the strabismus is caused by congenitally large or early hypertrophied muscles. Any of the varieties mentioned may be quite definitely diagnosed before the sixth month.

Divergent strabismus is not infrequently seen to develop in children from the first to the fourth year, usually from two to two and a half years of age. These may be improved, but are frequently made worse by glasses. Many such cases have a difference in level of the eye, some have a paralysis of convergence and some a definite aversion to binocular single vision.

Convergence strabismus developing after the first year may be associated with an hypermetropia. A diagnosis should be made as soon as observed and glasses prescribed if any definite amount of refractive error is found. Atropine may be used to control the fixing eye or occlusion may be used instead of, or along with atropine. If the squint is improved by atropine, the prognosis is more favorable. Orthoptic training may be used on selected cases. If definite improvement is not made by glasses and orthoptic training, other causes being eliminated,

*Presented before the Section on Ophthalmology and Otolaryngology, Michigan State Medical Society, Grand Rapids, Michigan, September 20, 1939.

operation should be resorted to early. The cosmetic result is of most importance, as children very early develop an inferiority or defence complex. Hence a correction of the deformity should be made as early as possible. If such a complex begins to develop, an operation is not one of election but an actual necessity. The time to operate is judged from the various conditions present and from their response to treatment.

The type of operation should vary with the type of strabismus and with the reaction from the various form of non-operative treatment that have been used.

In "The Nile," by Emil Ludwig, the effect of a squint on Lord Kitchener's life is clearly described by the author on page 223, and in subsequent pages. To quote:

"Once one realized that his squint was not of mental origin, but was due to a paralysis of the upper muscle of the left eye, it no longer aroused suspicion, but his icy, misanthropic manner, his domineering muteness, did not, for all that, make him likeable, and whoever had once shaken hands with him remembered all his life the man who in shaking hands, sought not to please but to impress." And again, "A lonely youth, a private education . . ."; further on, "always solitary whether drawing maps in Cyprus or designing bridges in Palestine . . . offended by the slightest criticism . . . he was liked by few—even women—preferred to be feared rather than to be loved, and in his lifetime was defended by few friends, but by them passionately."

The poet referred to a cross-eyed guide thus:

"While one eye watched the eagle's flight
The other kept the trail in sight."

Conclusions

1. A strabismus of any form should be diagnosed as soon as it is observed.

2. Treatment should begin early, if only to vary the fixing eye to prevent amblyopia.

3. Glasses, orthoptic training or other therapeutic measures should be used as the ophthalmologist feels they are indicated.

4. When treatment of one kind does not give the desired result, it should be changed or supplemented.

5. When non-operative treatment fails to give satisfactory results, the child should be operated. This should be done before school age, if the cosmetic blemish is definite.

6. After operation, it may be necessary to use glasses, orthoptic training or other forms of treatment.

Obstetrical Stethoscope

By Robert Monfort, M.D.
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Robert Newton Monfort, M.D.

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■ Recently, Richard Torpin* described a practical modification of the Hillis-DeLee obstetrical stethoscope consisting of a head band fitted with a 5 inch projection rod and thumb screw clamp at its distal end to which could be conveniently attached the physician's own stethoscope.



Fig. 1. Obstetrical Stethoscope in Position.

Several years ago, recalling the classical picture of the doctor with head mirror in place and a stethoscope about his neck, it occurred to me to unjoint the bell of the scope, slip the rubber tube through the hole in the mirror and re-attach the bell. Then by swinging the mirrored surface so that it faced downward, I found myself provided with a very efficient obstetrical stethoscope (Fig. 1).

Advantages: It costs nothing; is always available; points in any desired direction and is quickly adjusted. Firm pressure against the abdominal wall, though rarely required, may be made possible by pulling the stethoscope bell up against the mirror and tightening the mirror clamp.

*Torpin, R.: Modification of the Hillis-DeLee obstetric stethoscope. Am. Jour. Obst. and Gynec., 36:1073, (Dec.) 1938.

Carcinoma of the Cervix

Its Management*

By Arthur H. Curtis, M.D.
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Arthur Hale Curtis, M.D.

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■ An intensive study of pelvic anatomy, both in the operating room and in anatomical dissections has been carried on with Dr. Barry J. Anson.† Not only because of his originality in the pursuit of gross anatomy, but also because of his keen interest in the adaptation of what we have learned to the solution of clinical problems, I am particularly grateful to my co-worker.

I wish to direct your attention to the cellular tissues of the pelvis, for it is through them that infections spread, and cancer invades. Permit me to dwell for a moment on what "cellular tissue" really signifies, before presenting drawings which illustrate the detail of these tissues in their relation to the female genitalia. To accentuate the importance of this, let us emphasize that the pathway of the lymphatics and blood vessels is entirely by way of the cellular tissues, and that knowledge of the latter therefore portrays in exact detail the route by which cancer spreads.

Cellular tissue is comprised of connective tissue cells and may serve as loose packing, as in the areolar tissue within the broad ligament, or may be more dense, tense and firm, thus constituting ligamentous tissue. Furthermore, the connective tissue fibrils may serve as a filler, or they may form a firm fascial covering or a thin more or less incomplete sheet, gradually fading away like the thin bark on a white birch tree.*

It would appear that a new concept is available in appraisal of local extension of cancer beyond the confines of the uterus. The spread of cancer is inevitably through the cellular tissues along the fascial planes which have been depicted. With detailed knowledge of the cellular anatomy of the female pelvis now available, local metastases may be expressed in terms of interstitial involvement, superseding our heretofore hazy understanding of lymphatic drainage. Palpation of the tissues in an attempt to evaluate the invasion of these anatomically definite routes of extension promises to yield more trustworthy deductions relative to the extent of the malignant process; likewise, evaluation of the condition of the cellular tissues, as well as the glands encountered at operation, should be preferable to attention concentrated on palpation of the lymph nodes.

Carcinoma of the Cervix

I shall omit consideration of the operative treatment of this affection, and also, because of lack of time, shall content myself with a summarized listing of essential details in the non-operative management.

1. A well trained gynecologist should be able to diagnose carcinoma of the cervix from its gross appearance alone, in nearly all instances. I have no brief against routine preliminary removal of fragments of tissue for biopsy study before venturing a diagnosis, but we do not often resort to this procedure. On the other hand, we frequently find that establishment of a certain diagnosis necessitates examination under anesthesia, often with instrumentation to provide adequate exposure and to determine the exact nature of atypical or hidden areas. I not only condone such examinations, but would emphasize the value of the study of cervical cancer patients when thus asleep, in order to evaluate the intricacies of the therapeutic problem which confronts us.

At the time of the examination in the operating room it is my custom to state definitely, "It is," "It is not," or "I do not know whether it is cancer." Treatment is instituted immediately in nearly all instances, delayed only in that small percentage of cases in which the diagnosis is in doubt and must await microscopical exami-

*From the Department of Obstetrics and Gynecology, Northwestern University Medical School and Passavant Memorial Hospital. Read at the General Assembly of the Michigan State Medical Society, Grand Rapids, September 20, 1939.

†A contribution on "The Anatomy of the Subperitoneal Tissues and Ligamentous Structures, in Relation to Surgery of the Female Pelvic Viscera" will appear in a current issue of *Surgery, Gynecoloy and Obstetrics*. The reader is referred to that paper for illustrations depicting the anatomy.

*At the time of presentation of the paper a number of illustrations of original pelvic dissections were shown.

nation. Tissue is invariably taken for biopsy to make final confirmation of the diagnosis and for determination of the type of growth.

2. In the event that no malignancy is grossly recognizable, which usually means that malignancy is unlikely, the diseased area should be removed in toto as a prophylactic and diagnostic measure, the entire excised tissue immediately sliced for gross inspection, all of the several pieces so obtained being thereafter imbedded for microscopical study of one or more sections from each. I rarely find it helpful to resort to the Schiller test or colposcopic examination, but believe we should remain somewhat open-minded about the latter.

3. Non-ulcerated, non-infected cases of cancer with a favorable prognosis, i.e., Stage I and Stage II clean cases, are treated with a tandem of radium capsules within the canal together with radium needles imbedded in a palisade encircling the cervix. Some maintain, and probably with reason, that radium within the canal together with radium placed against the cervix is equally efficacious. Our usual dosage varies from 3,500 to 4,500 mgm.-hrs. No further radium treatment is required for many months, at least, in these clean cases.

4. In all cases of cervical cancer with a serious prognosis an intravenous pyelo-ureterogram is indicated, in order to determine whether there is involvement of the urinary tract.

5. Ulcerated or craterous necrotic cancer must be healed on the surface before intensive radiation, to avoid the danger of pelvic cellulitis. Surface healing may be accomplished with surgical diathermy or with a palliative radium application of 1,000 to 1,500 mgm.-hrs., preferably in a bomb. Many weeks later, after healing of the necrotic surface, radium treatment may be given as described for non-infected favorable cases.

Some of this group cannot be radiated adequately without endangering the bladder or ureters; in such instances, simple vaginal dissection readily displaces them out of harm's way. With the bladder safely anchored in an elevated position we may give intensive radium treatment, with selective implantation of needles in the musculofascial parametrial tissues aided by radium capsules within the uterine canal.

After preliminary radium treatment has healed the surface, deeply craterous and other relatively advanced cases are treated conservatively with a radium bomb against the cervix, with painstaking care to avoid destructive overtreatment. Hopelessly extensive and deeply ulcerated cases may receive no therapy other than x-ray treatment. Even this must be administered with caution, for the possibility of cure is slight and of doing harm is great.

6. Intensive high voltage x-ray therapy is instituted immediately, in all cervical cancer cases, as soon as a diagnosis is established. The patient is carefully watched and guarded against the hazard of overtreatment. X-ray therapy is a great boon. But, as we learned some years ago, it is not innocuous: thus, in one bad case, treated intensively, there was leukopenia, a clinical picture of agranulocytosis, and the patient died with myriads of small ulcerations of the colon. Not a vestige of cancer was discoverable at autopsy.

7. Now for a suggestion to which many of you may not be receptive: Howard Kelly was right when he stated that 85 per cent of the value of radium therapy lies in the first treatment and 85 per cent of the harm which we do is ascribable to subsequent radiation. But that dictum, admirable with the knowledge and methods of early days of radiation therapy, is no longer applicable with our somewhat widened vision. The extent of the cancerous lesion cannot be accurately appraised in the majority of serious cases at the time of the first treatment. Therefore, I have found it immeasurably helpful to make another painstaking study, under anesthesia, almost routinely, several months or a year or more subsequent to the first intensive treatment with radium. One can then determine with considerable precision, and in detail, what has been accomplished. Such an examination should of course be made with radium ready, and with instruments prepared for simple surgical intervention to insure satisfactory placement of the radium.

I pause to cite only one of many cases in point. A patient was brought to me with a history of prolonged, supposedly functional bleeding. Palpation was negative, but I suspected a hidden cancer. Under anesthesia we found an endocervical malignancy. The cervix was a craterous shell with the bladder resting on a thin film of cervix anteriorly. The cervicovesical wall

was so thin that it felt like a fluctuant fetal sac. Tissue was obtained for histological study. With fear we gave 800 mgm.-hrs. of radium within the canal, then instituted x-ray treatment, and three weeks later applied a radium bomb to the cervix. After four months, examination under anesthesia revealed smoothly healed surfaces, the cervix a firm thin shell, anteriorly of tissue paper thinness. The bladder was mobilized by blunt dissection and shoved upward, the uterus pulled downward so that the internal os became the external os, and then it was possible to treat with intensive radiation. The patient has remained free from evidence of cancer on repeated examinations under anesthesia.

8. Cancer of the cervical stump may be treated by radiation alone, but I prefer removal and radiation in cases with the growth apparently limited to the cervix. We employ radiation followed by subsequent removal in all other cases except those which are hopelessly extensive. My advocacy of surgical removal, in preference to x-ray-radium radiation alone, is prompted by bad results from treatment solely with radiation therapy, also by the simplicity of vaginal removal of the cancerous stump, and by the fact that it is usually impossible to estimate the extent of the cancerous process in these cervical stump cases, and therefore difficult to determine the amount of radiation required without exploration to reveal the stage of the disease. These views relative to the management of cancer of the cervical stump are still in a state of flux, subject to revision.

"Giving is in itself a gift. More, it is a fine art," said Dr. Terry M. Townsend of New York City, president of the Medical Society of the State of New York.

"But among cultured people the art of giving becomes a refinement. Civilization began when man learned that he could satisfy his egotism and his altruism by a single act. The doctor's philosophy of life is summed up in the way he gives his talents. The more he gives, the more he is asked to give, and as he increases his capacities and becomes known for the quality of his gifts, he attains a position of greater eminence and satisfies his normal ego-urge.

"To get the most from the doctor's gift, the patient must give something, too, that would help both the docor and the patient. It would help the patient because he will value that for which he has paid more than that which he receives for nothing. There is a basic human tendency to believe that what costs us nothing is worth nothing. This will be true even in that dim and distant day when Senator Wagner succeeds in enacting into law all the paternal measures that his fertile mind can invent."

Clinical Pathological Conference

Staff Conference
Department of Internal Medicine

University Hospital, Ann Arbor
Service of Cyrus C. Sturgis, M.D.

W. W., No. 437766, white, married, American, night club operator, was admitted February 2, 1939.

History.—One and one-half years ago the patient began drinking heavily, averaging at least one quart of hard liquor plus beer each day. His appetite gradually diminished. Six months before admission his diet consisted of coffee and toast, an occasional sandwich and a fairly liberal evening meal with meat, potatoes and vegetables. Four months before admission his appetite became poorer and the evening meal was frequently omitted or vomited shortly after it was eaten. Two and one-half months ago he noticed unsteadiness of his legs, causing him to fall occasionally, and necessitating the use of a cane. Also, there was then the onset of swelling of the face and ankles and a diminution in the urinary output to a marked degree. Nausea and vomiting progressed to the point of his inability to take any solid food for two months. However, he continued his usual quota of alcohol and work until ten days before admission.

Three weeks before admission he quit the alcohol, and began taking small amounts of food and for one week had taken one quart of milk daily. At this time he was beginning to gain weight rapidly. During the last ten days he has developed massive edema of the legs, abdominal wall, back, and face. For the same period of time he has had aching of the calves of the legs with burning pain on touching the legs. With the swelling of the legs, the skin and muscles became painful and tender. Dyspnea and dry, hacking cough increased since the onset to such a degree that he was dyspneic at bed rest. Orthopnea had not been present.

Physical examination.—Temperature 98.6; pulse 110; respirations 25 to 30. Blood pressure 155/80. The patient was a well developed and nourished, puffy faced, adult male, somewhat dyspneic, lying flat in bed. A frequent dry, hacking cough was present. The neck veins were distended. The tongue revealed considerable atrophy of most of the papillae. Examination of the lungs revealed dullness and diminished breath sounds at the right base but no rales were heard. The heart was enlarged, the left border of cardiac dullness measuring 15 cms. to the left of the midsternal line in the fifth interspace. No murmurs were heard but there was a protodiastolic gallop at the base and in the fourth left interspace. The liver was tender and extended 7 cm. below the

right costal margin in the midclavicular line. The abdominal wall was markedly edematous. No ascites could be demonstrated. Massive edema of the lower back, thighs and legs was present. All tendon reflexes were absent. Pinprick sensation over the anterior two-thirds of the lower legs, upper one-third of the thighs, and whole of the feet was absent. He had a steppage gait, and a positive Romberg sign. Vibratory sense was present on the left but absent on the right leg.

Laboratory data.—Hemoglobin 72 per cent; red blood cells 4,500,000 per cu. mm.; white blood cells 5,300 per cu. mm. Polymorphonuclear neutrophils 64 per cent; large lymphocytes 7 per cent; small lymphocytes 11 per cent; monocytes 17 per cent; basophils 1 per cent; mean corpuscular volume 99 cubic microns; hematocrit 42.5 per cent. Urinalysis was negative except for three to five white blood cells, and two to four casts per low power field on February 2, 1939; negative on February 14. On February 3, serum proteins were 5.5 grams per cent; albumin 3.5 grams per cent; globulin 2.1 grams per cent. Bilrubin 10 mgm. per 1,000 c.c. (Direct). Kahn test was negative. Ascorbic acid on February 7 was 0.84 mgm. per cent. X-rays on February 3, 1939 showed cardiac enlargement with pulmonary vascular congestion and less vascular congestion on February 11, 1939. On February 23, orthodiagram showed only slight cardiac enlargement with slight prominence of pulmonary vascular markings.

Discussion

Dr. Cyrus C. Sturgis: Our first patient today is presented by Dr. Noyes L. Avery. On admission this patient had low serum proteins, massive edema, a reddened tongue with atrophy of the papillae, and cardiac enlargement which was about 30 per cent above normal. He started to improve on the day of admission. He lost 47 pounds in sixteen days of hospitalization. Dr. Avery, what is your diagnosis?

Dr. Avery: I think he had wet beriberi due to his deficient diet. Additional laboratory work showed his urea clearance to be entirely normal, and his blood pressure within normal limits. The blood carotene was within normal limits, as was the blood ascorbic acid. On the sixth day of hospitalization his circulation time was 16 seconds; on the fourteenth day it was nineteen seconds, and yesterday it was 21 seconds. I think this is a significant decrease in the speed of circulation, an increase in which is apparently characteristic of this disease. On admission his blood pressure was 155/80. Gradually the systolic pressure has decreased and the diastolic pressure risen. His weight on admission was 207 pounds which rapidly came down by the thirteenth day to 159 pounds. He started having a diuresis immediately after coming into the hospital but on the fifth day two things happened. First, Vitamin B had been given the day before; secondly, he developed auricular flutter at which time he was given a gram of digitalis. In four hours the flutter disappeared and his heart rate became normal. Forty milligrams of Vitamin B, or thiamin chloride, were given hypodermically on the sixth day and since that time he has had 20 milligrams of the drug orally. He had another attack of auricular flutter on the twelfth day but no treatment was given and it disappeared spontaneously. His output was between 4,000 and 5,000 and 6,500 following the digitalis and Vitamin B.

Dr. Sturgis: Beriberi heart is a rare condition to us. I think it is hard to prove that this is beriberi heart. The man has no other cause for heart disease, i. e. hypertension, arteriosclerosis, rheumatic lesions or evidence of luetic heart disease. He responded well to treatment, although he really had begun to have a diuresis before he received any treatment. It is a very interesting possibility and it seems to be as near a beriberi heart as anyone can prove. Dr. Field, would you like to discuss this case?

Dr. Henry Field, Jr.: I think that the figures on the blackboard furnish chemical proof that the patient had a marked deficiency in Vitamin B_1. We have been able to analyze this vitamin in the urine for the past two months. He excreted 0.013 mg. of this vitamin in twenty-four hours. This is by far the lowest figure that we have obtained and is less than one-tenth of the average normal excretion. After an oral test dose of 5 mg. of the vitamin, he excreted in twenty-four hours only 0.12 mg., which is about one-fifth of what a normal person would excrete.

I might say that it has been part of the clinical experience with beriberi heart or wet beriberi, that they commonly have some diuresis when they go to bed and rest, and I do not think that the fact that this patient had some diuresis before he was given intensive vitamin therapy at all mitigates the diagnosis of beriberi heart. It is unfortunate that his condition was such that it seemed necessary to give him digitalis when auricular flutter developed. He received, however, less than a therapeutic dose of it.

Dr. Sturgis: How do you explain the edema?

Dr. Field: There are several possible explanations. If he has had cardiac change, which is demonstrated in people who die of wet beriberi, degenerative changes in the myocardium and secondary hypertrophy, this may be a factor. There is evidence to indicate that the edema may also be due to increased capillary permeability, and increased capillary blood pressure due to arteriolar dilatation.

Dr. Sturgis: Do you think it related to his low plasma proteins?

Dr. Field: His plasma proteins were not low enough to be a major factor in his edema.

Dr. Sturgis: Dr. Holmes, this is the subject you discussed at Journal Club some time ago. Did Dr. Weiss make any studies similar to this?

Dr. Kendall B. Holmes: He made his diagnosis chiefly by clinical observations and observations of various therapeutic responses of patients who were given Vitamin B. During the entire course his patients were on a diet of milk and crackers, in bed for five to six days, and fluids limited to 2,400 c.c. They were given 20 to 60 mgs. Vitamin B intravenously, daily, and the responses of circulation time before and after the administration were noted. The size of the heart was measured, electrocardiograms were taken, and liver function tests were made. Dr. Weiss believes that the chief cause of edema is due to the fact that these patients have paralysis of the nerve endings supplying the arterioles and therefore the arterial pressure is transmitted directly to the capillaries, raising the capillary pressure to such a height that transudation takes place.

Dr. Field: We had one patient here with a long standing rheumatic heart disease who, on our standard treatment, was doing badly. He was not eating well, and we gave him Vitamin B_1. He had a very

(Continued on Page 55)

President's Page

"OF CHARITY, wherein we of the medical profession, to walk worthily, must live and have our being." It is Osler speaking.

I assume that he had special reference to that Charity which is shown by tolerance of the faults and foibles of our fellows, that tolerance which marks the understanding physician in his relation with his patients and without which the most competent physician-scientist is a poor doctor.

But the word Charity has another connotation—that of *giving*. The traditional Charity which the physician extends, is not a burden. It is a joy—when given of his own free will. He is recompensed by the knowledge that he "walks worthily." It is only when this traditional Charity is taken as a right, when government would force Charity upon the physician, that it becomes a burden, a burden to be resisted not only because it is so palpably unfair, but because the very spirit of Charity is lost, and to recipient and donor alike it becomes a poor thing.

Burton R. Corbus

President, Michigan State Medical Society.

EDITORIAL

Michigan Motor Industry

■ This issue of The Journal has been dedicated to the motor industry as the greatest and most important business of the State. This is only fitting. It has made Michigan one of the leading manufacturing states of the country, and, as an employer, has been of great financial value to the doctors of Michigan.

There are other factors, which are embodied in this industry, which are often overlooked as the physician evaluates the motor car and its production. The physical extension of the sphere of practice and the influence of the profession has been so enlarged that we find it difficult to keep abreast of the rapid change. Surely, it has been one of the predominant factors in many of the changes in the scope of practice. In its peculiar form of mass production, several new types of diseases and new realizations of human limitations have been added to our knowledge.

Almost Unbelievable

The inability to develop highways to keep pace with the engineering improvements of automobiles has created a traffic condition which caused nearly three per cent of the deaths in the State. This is an appalling figure. It is more than four times the maternal mortality rate and more than one hundred and fifty times the number of deaths from acute poliomyelitis. Probably twenty, injured in serious accidents, survive for each death. What proportion of those who survive are permanently incapacitated in some degree is difficult to determine, but it may represent many times the number of those disabled from poliomyelitis.

We Can Help

Physicians in general seem to have taken no active forward step in the prevention of traffic accidents as a group. Yet there are many ways in which the profession could use its influence in the same manner that it does in other preventive measures.

Along purely medical lines this would include standardizing physical requirements for driving a car, discovering minimum psychological limits for drivers, and improving still further the machinery for handling victims of these accidents. We have done a great deal in this last part of the program, particularly in the advance of traumatic surgery, but no one will pretend that we do not have far to go, before we have caught up with the increasingly difficult problem.

Another manner in which we can aid and which seems to be singularly omitted from our activities is the lending of our influence in the regulations of traffic. While this may be primarily the problem of the police and highway departments, a supervisory stimulus from an understanding group such as the Michigan State Medical Society would have a salutary value. A study group to work under the preventive medicine committee would be a notable advance and productive of greater service to the people of the State.

New Business

■ The changing regulations governing employment and labor have brought about new health problems in industry, and at present industrial departments of medicine which are awake to their responsibility to employer and employe, know full well that the coöperation of the Doctor of Medicine, especially the general practitioner, is important to both labor and industry. This has been called to the attention of the officers of the M.S.M.S. and the Committee on Industrial Hygiene.

The importance of the general practitioner in this connection is shown by the fact that 98 per cent of the manufacturing establishments have less than 500 employes, and 65 per cent of all employes are in these small plants which use private practitioners. Likewise it is shown that approximately 10 per cent of lost time in industry each year is due to accidents and occupational diseases directly attributable to their employment. The other 90 per cent of lost time in workers is due to ordinary illnesses, and the degenerative diseases of old age play an important part. Since seniority rights in employment have be-

come effective it means that older people will be employed longer in life in industry, and it is important that the employe's private physician shall recognize his responsibility to keep him or her in the best health to do the job.

Industry, recognizing these facts, is asking for the help of the medical profession and is anxious to coöperate with us. Pursuant to these facts, and their requests, a program is now practically completed, including postgraduate education of physicians through speakers in county societies, articles in THE JOURNAL, postgraduate conferences, and seminars in medical centers. If the desired results are to be obtained, the physician must take advantage of these opportunities and give his fullest coöperation.

National Physicians' Committee

■ INSTEAD OF A small group who formed a committee to Russianize our profession, now a committee of twenty thousand physicians active in medical and community affairs are organizing to preserve the private practice of medicine in the best interests of the people of this nation.

This is not a group of non-practicing or Government subsidized physicians attempting to undermine what our profession has built in the United States during these long years of progress, but a fighting democracy of the private doctors of medicine led by men whose devotion and loyalty to the general practitioner and his problems is unquestioned.

We are not surrendering our birthright to the politician. We have just begun to fight.

Our Platform

■ THE PLATFORM of the American Medical Association (*see page 50*), as drawn up by the trustees defines its beliefs and intentions covering the relations of organized medicine to the public and government.

It has been most exactly stated and is based upon facts, figures, and the peculiar knowledge of the necessities of medical practice known only to those actively engaged in dispensing it. It is progressive and workable from economic, political and medical viewpoints.

If the legislative and executive branches of the Government are sincere in their desire to accomplish the best for the people of the United States in matters of health, these clear and concise planks stand as a solid footing upon which to build.

Let every physician who has contact with a legislator review with him these outstanding principles; then urge him to use these principles as the gauge to determine whether proposed public health legislation is the American way to maintain our high record.

Question and Answer Column

■ THE JOURNAL has made tentative arrangements with experts in the various fields of medicine to publicly answer queries or comments made by members of the profession. This will include any scientific questions as well as those of an economic or legislative character. Your name and address will be held confidential in the Editor's office if you so desire.

Centralization Dangerous

■ CENTRALIZATION of power in government is always dangerous. Encroachment of government on individual right always—inevitably—retards progress. Every step toward political control of medicine places limitations on its effectiveness. Such encroachments in the field of medical practice are in the truest sense suicidal.

In the United States there are those who seek to establish political control of medicine and of medical practice. They may actually believe their motives to be entirely honorable and wholly altruistic. Their arguments are plausible and alluring. But the accomplishment of this purpose would at first hamper and then progressively break down the morale and the effectiveness of the physicians—the men who are responsible for the physical well-being of one hundred thirty million men and women. (National Physicians' Committee for The Extension of Medical Service.)

CORRECTION

Dear Editor:

I wish to call your attention to a typographical error which was due to an oversight on my part in my recent article on "Treatment of Paroxysmal Hiccough with Benzedrine Sulfate Inhalation", November 1939.

The error in the article as it stands, is using the phrase "Benzedrine Sulfate Inhaler" where Benzedrine inhalation is really meant. Benzedrine Sulfate is not volatile and could not be used in the inhaler.

I would like to have an explanatory note made to the effect of the use of the Benzedrine Inhaler.

Respectfully yours,
HENRY A. HANELIN, M. D.



J. H. DEMPSTER, M.D.

Editor of the Journal of the Michigan State Medical Society, 1926 to 1939

■ It is an established custom that editors, both of lay and professional publications, be a voice behind the screen. However, there have been through the years, certain ones whose personality and ability are so marked that the anonymity cannot be maintained.

Many of our readers have met Dr. Dempster only through the printed page of THE JOURNAL, but so strong has been his influence that each one must feel that Dr. Dempster has been a personal friend and counsellor. Each reader has enjoyed and profited by the beautiful cultural style of his writing.

A great deal of the success of THE JOURNAL has been due to his enthusiastic willingness to aid the less experienced writers of scientific articles in smoothing out and clarifying the transcription of their work. To meet Dr. Dempster personally is to further appreciate his personal and professional accomplishments. The words inscribed on the scroll which was presented to him by the Michigan State Medical Society expressed the true thoughts of all:

> "In Grateful Recognition of his Long and Loyal Service, This Token is Presented by the Michigan State Medical Society."

The Platform of the American Medical Association

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coördinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

LIBRARY
Founded 1813

The Platform of the American Medical Association Explained

1. Today the medical and health functions of the United States are divided among a multiplicity of departments, bureaus, and federal agencies. Thus, the United States Public Health Service is in the Federal Security department; the Maternal and Child Welfare Bureaus in the Department of Labor; the Food and Drugs administration in the Department of Agriculture; the Veterans' Administration and many other medical functions are separate bureaus of the government. The WPA, CCC, and PWA are concerned with a similarity of efforts in the field of preventive medicine. The Federal Works Administration and the Federal Housing Administration also have some medical functions.

Since 1875, the American Medical Association has urged the establishment of a single agency in the federal government under which all such functions could be correlated in the interest of efficiency, the avoidance of duplication, and a saving of vast sums of money. Such a federal health agency, with a secretary in the cabinet, or a commission of five or seven members, including competent physicians would be able to administer the medical and health affairs of the government with far more efficiency than is now done.

2. The physicians of the United States have given freely of their time and of their funds for the care of the sick. Their contributions to free medical service amount to at least $1,000,000 a day. The physicians of this country have urged that every person needing medical care be provided with such care. They have urged also the allotment of funds for campaigns against maternal mortality, against venereal disease, and for the investigation and control of cancer. The medical profession does not oppose appropriations by Congress of funds for medical purposes. It feels, however, that in many instances states have sought aid and appropriations for such functions, without any actual need on the part of the state, in order to secure such federal funds as might be available. It has also been impossible, under present technics, to meet actual needs which might exist in certain states with low per capita incomes, with needs far beyond those of wealthier states, in which vast sums are spent.

It is proposed here simply that Congress make available such funds as can be made available for health purposes; that these funds be administered by the federal health agency, mentioned in the first plank of this platform, and that the funds be allotted on proof of actual need to the federal health agency, when that need be for the prevention of disease, for the promotion of health, or for the care of the sick.

3. Obviously if federal funds are made available to the individual states for the purposes mentioned in the second plank of this platform, there might well be a lessened tendency in many communities to devote the community's funds for the purpose, and, in effect, to demand that the federal government take over the problem of the care of the sick. Hence, it is suggested that communities do their utmost to meet such needs with funds locally available before bringing their need to the federal health agency, and that the federal health agency determine whether or not the community has done its utmost to meet such need before allotting federal funds for the purpose.

4. The medical profession is not static. It wishes to extend preventive medical service to all of the people within the funds available for such a purpose. Obviously, this will require not only a federal health agency which may make suggestions and initiate plans, but also a mechanism in each community for the actual expansion of preventive medical service and for the proper expenditure of funds developed both locally and federally. In the development of new legislation such mechanism may be suitably outlined.

5. The medical profession does not yield to any other group in this country in its desire to extend medical care to all of those unable to provide themselves with medical service. The American Medical Association through its House of Delegates has already recognized the possible existence of a small group of persons able to provide themselves with the necessities of life commonly recognized as standard in their own communities, but not capable of meeting a medical emergency. It is recognized, however, that only persons of the same community fully familiar with the circumstances can determine the number of people who come properly under such classification and that only persons in actual contact with such instances are capable of administering suitably and efficiently the medical care that may be required. Hence, it is the platform of the American Medical Association that medical care be provided for the indigent and the medically indigent in every community but that local funds to be first utilized and that local agencies determine the nature of the need and control the expenditure of such funds as may be developed either in the community or by the federal government.

6. In the so-called National Health Program it is asserted that one-half the counties of the United States are without suitable hospitals, and vast sums are requested for the building of new hospitals. In contrast, reputable agencies within the medical profession assert that there are only 13 counties more than 30 miles removed from a suitable hospital and that in 8 of those 13 counties there are five people per square mile. In the United States today the percentage of hospital beds per 1,000 of population is higher than that of any other country in the world. This fact is completely ignored by those who would indulge in a program for the building of great numbers of new hospitals.

Moreover, it seems to be taken for granted that hospital building has languished in recent years, whereas considerable numbers of hospitals have been built with federal funds by various state agencies and also by the PWA, the WPA and by the Federal Works Administration.

Analyses may indicate that in many instances such hospitals were built without adequate study as to the need which existed or as to the possible efficient functioning once it was erected. Moreover, there is evidence that in recent years many of the hospitals of the United States known as nonprofit voluntary hospitals have had a considerable lack of occupancy due no doubt to the financial situation in considerable part. It seems logical to suggest then that such federal funds as may be available be utilized in providing the needy sick with hospitalization in these well established existing institutions before any attempt is made to indulge in a vast building program with new hospitals. In this point of view the American College of Surgeons, the American Hospital Association, the Catholic Hospital Association, the Protestant Hospital Association and practically every other interested voluntary body agree.

Again it has been argued that the demands for medical care in some sections of the country might require the importation of considerable numbers of physicians or the transportation of numbers of physicians in the areas in which they now are to other areas. In this con-

nection it would seem to be obvious that a change in the economic status of the communities concerned would result promptly in the presence of physicians who might be seeking locations. The utilization of existing qualified facilities would be far more economical than any attempt to develop new facilities.

7. In the United States today our sickness and death rates are lower than those of any great country in the world. This fact was recognized by the President of the United States when he sent the National Health Program to the Congress for careful study. The President emphasized that a low death rate may not mean much to a man who happens to be dying at the time of tuberculosis. The medical profession recognizes the importance of doing everything possible to prevent every unnecessary death. At the same time it has not been established by any available evidence that a change in the system of medical practice which would substitute salaried government doctors for the private practitioner or which would make the private practitioner subject to the control of public officials would in any way lower sickness and death rates.

There exists, of course, the fact that some persons are unable to obtain medical service in the circumstances in which they live and that others, surrounded by good facilities, do not have the funds available to secure such services. Obviously, here again, there is the question of economics as the basis of the difficulty and perhaps lack of organization in distribution of medical service and a failure to utilize new methods for the distribution of costs which might improve the situation.

The medical profession has approved prepayment plans to cover the costs of hospitalization and also prepayment plans on a cash-indemnity basis for meeting the costs of medical care. It continues, however, to feel that the development of the private practice of medicine which has taken place in this country has led to higher standards of medical practice and of medical service than are elsewhere available and that the maintenance of the quality of the service is fundamental in any health program.

8. Careful study of the history of the development of medical care in various nations of the world leads to the inevitable conclusion that the introduction of methods such as compulsory sickness insurance, state medicine and similar technics results in a trend toward communism or totalitarianism and away from democracy as the established form of government. The intensification of dependence of the individual on the state for the provision of the necessities of life tends to make the individual more and more the creature of the state rather than to make the state the servant of the citizen. Great leaders of American thought have repeatedly emphasized the fact that liberty is too great a price to pay for security. George Washington said, "He who seeks security through surrender of liberty loses both." Benjamin Franklin said, "They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety."

In these times when the maintenance of the American democracy seems to be the most important objective for all the people of this country, the people may well consider whether some of the plans and programs that have been offered for changing the nature of medical service are not, in effect, the first step toward an abandonment of the self-reliance, free will and personal responsibility that must be the basis of a democratic system of government.

Lay Editorial Comment

Editorial comment by the lay press was quite extensive following the publication of the Platform of the A.M.A. Practically all the comments were favorable. Two editorials stand out:

Doctors Take High Stand

Nearly unanimous refusal of the 1,000 physicians of New Zealand to accept a State-guaranteed annual income of $7,500, provided they coöperate with the Government's socialized medicine law, illustrates the attitude toward compulsory sickness insurance of many doctors in every country. The sum offered the New Zealanders is more than the average doctor there earns.

Motives of doctors in the United States who have opposed the compulsory insurance plan have been questioned by some skeptics, who appear to think the medical men are afraid their earnings will be reduced. Many thousands know of the philanthropy of the better class of physicians. Some estimates of the annual amount of free service given by American physicians place it at more than $300,000,000 a year.

Obviously, the current opposition of organized medicine to the interference of government is based on higher than mere monetary grounds. As the American Medical Association declares, compulsory sickness insurance may be harmful to patient, physician and state. —*Christian Science Monitor,* November 22, 1939.

The A.M.A. Program

The American Medical Association has come out with a program of principles for solving the nation's health problems without resorting to Federal Government control and compulsory sickness insurance. Its own program is set up as a backfire to the other, against which one of the chief arguments the Association advances is that it would comprise a trend away from democracy.

Everybody talks about democracy and the menaces to it these days. Regimentation of life in certain foreign countries induces a wholesome, overdue reëxamination of the values of individual freedom and corollary responsibility under democracy's looser system. It is seen and keenly appreciated again, as if it were a new discovery, that the free and responsible individual who is the unit of government is a far different person than the man or woman who is the creature of government.

But it is not so clearly seen that regimentation can come to a people insidiously, in beneficent guise, as well as through the compulsion of a recognized and feared dictatorship; that, for example, the eager pursuit of social objectives which are intrinsically admirable may require dangerous strengthening and extension of the Federal power, debilitation of the States as sovereign entities which are closer to the people and further destruction of individual responsibility, self-reliance and freedom of action.

To the extent that that occurs democracy is damaged, and it is for that reason that it is decidedly in point to study proposed approaches to the national health problem with the preservation of democracy in mind.

The Federal Government, from motives of paternalism or bureaucracy, has a well-developed penchant for

Note: Italics are the editor's.

patting the citizen on the head—extracting money from his pocket, of course, to pay for the gesture. There are some who would now have it wipe his nose and extract some more money, this paternalism being in the form of compulsory sickness insurance. It would further decrease his economic freedom of action, but no thought is given to that. It would further decrease his responsibility and capacity for taking care of himself on his own initiative, and it would alter, perhaps profoundly, his traditional and important relationship to the medical profession, which exists for and because of his needs as a private citizen and human creature rather than as a ward of government. But no thought is given to that, either.

The fact is that the advocates of head-patting and nose-wiping want, or at least are willing to accept, a socialized nation as the price of paternalism. The battle with them therefore ought to be waged on that front. *Health is not the issue; democracy is.* As a matter of fact the prime public problem in the United States today is not at all the health of the citizens; the prime problem is the decidedly poor health that the Federal Government is enjoying. The latter is obese with bureaucracy and ravenously hungry for more taxes to satisfy its self-generated, insatiable appetite. It ought to be put on a programmatic diet before it eats us out of house and home. Is there a doctor in the house?—*The Providence Sunday Journal,* November 19, 1939.

Michigan Medical Service

Registration of Physicians

The organization of Michigan Medical Service, the voluntary, non-profit, group medical care plan sponsored by the Michigan State Medical Society, is completed and the program is now ready for the participation of doctors of medicine in Michigan. All phases of the plan were developed by the Council of the Michigan State Medical Society following the instructions of the House of Delegates.

The Board of Directors of Michigan Medical Service at its meeting on December 15, 1939, authorized the sending of a Registration Application to all doctors of medicine in Michigan to signify their desire to coöperate in providing medical services for persons in the low income group on a prepayment basis.

Every physician has probably already received his Registration Application together with other material describing in detail the Michigan Medical Service plan. Members of the Michigan State Medical Society will not have to pay a registration fee, but can participate by signing and returning the Registration Application to Michigan Medical Service.

Résumé of Events

One year ago, January 8, 1939, the House of Delegates of Michigan State Medical Society in special session empowered the Council to formulate a non-profit, group medical care plan and to introduce the necessary legislation to make such a plan possible.[1] During the past twelve months, the Council, with the able assistance of the Committee on the Distribution of Medical Care, the Legislative Committee and several special committees, secured the passage of the group medical care enabling bill[2] and perfected the medical service plan, Michigan Medical Service.[3]

Full information concerning Michigan Medical Service was made available to Councilors, Delegates and members at large, prior to the Annual Meeting of the House of Delegates in September, 1939, when Michigan Medical Service was approved and the Council empowered to place the plan in operation.[4] Immediately following this action a letter was sent to the physicians of Michigan informing them of these developments and including a digest of the proposed medical service plan.

On November 30, 1939, the Council transferred the task of inaugurating the medical service plan to the Board of Directors of Michigan Medical Service.

A Professional Program

The members of the Council of the Michigan State Medical Society and of the Board of Directors of Michigan Medical Service have given freely of their time to complete the almost overwhelming job of arranging a medical service plan to be operated and controlled by the medical profession. Now it remains for each individual physician to do his part. By signing the Registration Application of Michigan Medical Service, physicians will demonstrate that the medical profession is ready and willing to provide medical services under a properly organized and administered medical service plan.

1. See The Journal M.S.M.S., February, 1939, p. 165.
2. See The Journal M.S.M.S., June, 1939, p. 522.
3. See The Journal M.S.M.S., November, 1939, p. 960, and December 1939, p. 1110.
4. See The Journal M.S.M.S., November, 1939, p. 994.

Afflicted-Crippled Child

Representatives of the Michigan State Medical Society met with Emerson R. Boyles, legal advisor to the Governor, in the Governor's office on November 30, to discuss problems associated with the Crippled and Afflicted Child Law administration. Three days previously, the Crippled Children Commission had been asked to resign in toto by the Governor. The implication back of the request seemed to be that the Commission was paying exorbitant rates to hospitals and fees to physicians.

At the meeting, the medical society was represented by Henry R. Carstens, M.D., and A. S. Brunk, M.D., Chairman and Vice Chairman of The Council, respectively, L. Fernald Foster, M.D., Secretary, and Wm. J. Burns, Executive Secretary. The Committee presented the following statement:

STATEMENT OF THE MICHIGAN STATE MEDICAL SOCIETY RE: CRIPPLED AND AFFLICTED CHILD PROBLEM

"When the hospital and medical care of afflicted children became the responsibility of the State of Michigan on May 25, 1935 (Act 94 of 1935), state officials discovered that the Legislature had failed to appropriate any money for the payment of physicians' fees, despite the fact that the law specified fair and reasonable compensation to doctors for medical care. In order to aid the state and the hospitals, the medical profession of Michigan voluntarily agreed to perform all services for crippled and afflicted children without compensation until the beginning of the next fiscal year. Thus, free service was given to these thousands of children from May 25, 1935, to June 30, 1936, a contribution of between $500,000 and $600,000 to the State of Michigan by doctors of Medicine.

"The late Governor Fitzgerald realized that this condition was unfair and inequitable, so on June 4, 1936, he issued an Executive Order in which he stated:

> "the medical profession of the state has given its services generously without compensation, no matter how serious the illness or how long continued the treatment, but who are entitled to fair and reasonable compensation."

"Following the suggestion of the medical profession, Governor Fitzgerald further provided for the creation of an economic committee (or filter board) and a medical committee (or filter board) in each county, to strike at the heart of the problem—*the intake,* or certification of cases to receive state aid. He also agreed that physicians should be paid for their services on the basis of Schedule A for afflicted children and Schedule C for crippled children. These schedules were based on composite fee schedules covering the entire state of Michigan, developed in the depression year of 1933, and then discounted for state cases by at least 50 per cent of the normal fees. In other words, the fees listed in Schedules A and C represent a discount of at least 50 per cent of normal fees which is given by Michigan physicians in the care of crippled and afflicted indigent children. (The costs of practicing medicine run to 50 per cent, according to authentic surveys, and all the physicians want for the care of indigents is costs.)

"The Michigan State Medical Society immediately developed its medical filter committees. Without compensation, physicians in all parts of the state set aside half-days to examine children to ascertain if the desired medical care were necessary. The case load dropped and remained low as long as the fifter system functioned.

"However, it was not long before those in charge of *economic* filters discovered that the Governor's executive order was extra-legal, so the interest in and efficiency of the *economic* filters quickly died out. Doctors discovered children, whom they certified on one day of the week as not emergency cases and not worthy of care by the State, were on their operating tables, with certification obtained from the economic committee, on a subsequent day of the week! Naturally the medical committees did not relish being thus ridiculed and after vainly seeking coöperation for some eight or ten months, some of the medical boards finally ceased to function. However, a number are still active and doing a good piece of work.

"With the breakdown of the economic filter, with no check on the intake, and with more people becoming acquainted with these Acts, the load increased to such a point that the State's appropriations were inadequate. However, it must be noted that only 17 per cent of the crippled child and 34 per cent of the afflicted child costs were paid to doctors.

"The problem now is the same as it was in 1936: a matter of controlling the intake by proper *economic* investigation. The 1939 Afflicted Child Law gives authority to the Crippled Children Commission to appoint coördinators. If this provision were put into effect immediately, we believe that deserving indigent children would receive *necessary emergency* hospital and medical care with the funds that are available. But if *adequate* hospital and medical care are to be provided, we believe the present appropriation must be enlarged to a reasonable sum. It is recognized that the afflicted-crippled child appropriation of 1939 was never meant to cover costs of this important work, but was an act of economy to help balance the budget. If the economic filter boards are satisfactorily set up in Michigan, the Michigan State Medical Society pledges its coöperation to try to resurrect the voluntary medical filter boards throughout the state.

"To summarize, the Michigan State Medical Society feels that the main problem of the Afflicted-Crippled Children Laws is one of more careful supervision of intake, which can best be accomplished by the appointment of coördinators, aided by medical filter boards."

During the ensuing discussion, Judge Boyles intimated that the Crippled Children Commission was dominated by the medical and hospital groups, and asked repeatedly if the Michigan State Medical Society would order a "medical strike" if their already reduced fees were further cut. The Michigan State Medical Society as an organization would never advocate such a strike; but whether individual physicians will do this work for less than actual cost is a matter of their personal prerogative, was explained to Judge Boyles. No other commodity, it was pointed out, is purchased by the State at fifty per cent discount, and it is an unjust imposition to expect the medical profession to take an additional one-third reduction on the already large

discount represented in "Schedule A" which is the cost price to doctors doing this work.

The delegation stated the medical profession felt that the State, by asking for a lower fee, is capitalizing on the traditional charity of the doctors, and at the same time throwing the blame on the shoulders of the medical profession for the medical relief load, over which the doctors have no control.

"The gross leaks are on the economic side—the economic investigation is responsible for the large case load in the past," stated Secretary Foster, who presented data to prove his contention.

Judge Boyles said nothing about the unpaid bills due hospitals and physicians for work done up to June 30, 1939, amounting to some $450,000. No thanks were extended for the altruistic generosity of the medical profession who gave *free* service to crippled and afflicted children (wards of the state) from May 25, 1935, to July 1, 1936, in the sum of $600,000.00.

The laborer is worthy of his hire, or as the late Governor Frank D. Fitzgerald stated: "The medical profession is entitled to fair and reasonable compensation."

CLINICAL PATHOLOGICAL CONFERENCE

(Continued from Page 45)

marked improvement. I think that the neutral diet which we use is rather border-line in adequacy.

DR. STURGIS: Dr. Field, what is the most practical form of supply of Vitamin B for the general practitioner?

DR. FIELD: I think that Vitamin B_1 should not usually be given alone because the different factors of the Vitamin B complex are so much associated in foods that if a man is deficient in Vitamin B_1 he is also more or less deficient in the rest of the complex. In a case like the one presented today, where the Vitamin B_1 deficiency is the outstanding factor, I think it is all right to give synthetic Vitamin B_1 in tablet form, or intramuscularly provided that provision is also made to supply the rest of the Vitamin B complex. If you use a large amount intramuscularly or intravenously, a large proportion of it is lost in the urine. There are also circumstances where one cannot give whole yeast or yeast extracts orally due to the presence of vomiting. In a patient with a deficiency disease which is complicated by vomiting so that they cannot take anything by mouth, I think there are two factors in the vitamin complex which are probably of outstanding importance —Vitamin B_1 and nicotinic acid which now can be obtained as synthetic products and can be given parenterally. These may be tolerated, by mouth, until conditions improve so that the whole Vitamin B complex may be given. Ordinarily, I think whole yeast or one of the concentrates is the form to give. These can commonly be supplemented with nicotinic acid profitably because they contain disproportionately small amounts of it in respect to the effective dose.

DR. STURGIS: It might be well to routinely treat all chronic alcoholics with yeast.

DR. FRANK N. WILSON: I should like to say a word or two about the cardiac difficulty. Wenckebach studied the beriberi heart in the Dutch East Indies. He found that beriberi is not now as common as it was at one time. He speaks of patients with beriberi who had symptoms of collapse when they tried to work. They were comfortable and showed comparatively few cardiac disturbances when at rest, but on exercising they developed extreme over-activity of the heart; some became unconscious and died in these attacks. The Japanese refer to these as Shöshin". The administration of adrenalin, like exertion, produced extreme over-activity of the heart and exaggerated pulsation of the arteries and veins. These phenomena together with increased warmth of the skin suggested that there was marked relaxation of the arterioles leading to a very rapid flow of blood from arteries to veins as in arteriovenous aneurysm. The diastolic blood pressure fell and the systolic pressure rose. As mentioned, these symptoms could be produced by the administration of adrenalin. Ordinarily, this drug causes contraction of the arterioles but in this condition it causes a dilatation. This paradoxical reaction to adrenalin is the most characteristic feature of the circulatory disturbances produced by beriberi. Weiss made use of it in testing some of his patients. The increased blood flow which occurs as the result of the arteriolar relaxation throws a heavy load upon the heart. At autopsy the right side of the heart is tremendously enlarged and the endocardial surface looks as if it had been ironed. Weiss made some electrocardiographic studies on patients with heart disease of this type. He also produced Vitamin B_1 deficiency in rats and these rats developed pronounced bradycardia and striking electrocardiographic changes. Most of the changes were in the T-deflections; there was pronounced displacement of the Rs-T junction. These changes disappeared promptly when crystalline Vitamin B_1 was given. I should think it would be worth while to try the adrenalin test on patients thought to have beriberi heart disease. I do not think digitalis has been used and I think it would not be of any particular value.

DR. AVERY: Keifer reported patients who had received digitalis without any improvement at all.

Follow-up Note

The patient was discharged on February 23, 1939 on 5.0 milligrams of synthetic Vitamin B_1 and five tablets of B complex three times a day. He returned for a check up examination on April 4, 1939 stating that he had been eating an excellent diet and no alcohol. He had taken no Vitamin B_1 for three weeks and no B complex tablets for one week. Paresthesias of the feet and legs were still present. There was no edema and the heart appeared normal. Blood pressure was 126/80. All tendon reflexes remained absent. Orthodiagram at this time showed no cardiac enlargement. Venous pressures and circulation times were normal. He was discharged on B complex, nine tablets a day, and Vitamin B_1, 5.0 milligrams twice a day. He has not been heard from since.

YOU AND YOUR BUSINESS

OBJECTIVES AND ACTIVITIES OF M.S.M.S.

Economic

"The delivery of adequate, scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life" is of even greater significance today than when uttered by Dr. Olin West, some twenty years ago.

The Michigan State Medical Society and its component county societies bring you these valuable benefits of membership:

1. Defense of your profession and your source of livelihood from encroachments from without.

2. Participation in the varied activities of the county and state medical societies—all designed to preserve the physician-patient relationship.

3. Protection against state and national legislation inimical to public interests and advancement of medical science; constructive efforts to initiate beneficial health measures; important contacts to effect the proper administration of existing laws.

4. Information and action on fraudulent schemes, inferior products, and pseudo-medical practitioners through close coöperation with the State Department of Health, the State Board of Registration in Medicine, and other departments at your State Capitol.

5. Assistance in obtaining appointments as examiner for insurance companies, state departments, and other organizations.

6. Personal service of your Executive Office in Lansing in matters associated with your practice of medicine.

The returns you receive from membership in the Michigan State Medical Society are almost unlimited. You cannot afford to be outside the Society. Your destiny is intimately related to the success of your county, state and national medical organizations.

COUNTY SECRETARIES' CONFERENCE, JANUARY 21, 1940

A unique program is being developed for the Annual County Secretaries' Conference of the Michigan State Medical Society, to be held at the Olds Hotel, Lansing, Sunday, January 21, 1940. The morning session will be devoted to round-table discussion of Michigan Medical Service, Medical Relief, and the Afflicted-Crippled Child Laws. *(See Program, Page 60.)*

The extraordinary feature of this year's meeting will be a joint noon-day dinner and afternoon session with the health officers of the state, called to Lansing by State Health Commissioner H. Allen Moyer, M.D. This joint meeting will be the first of its kind in Michigan, and bodes well for future coöperation and united accomplishment by the medical and health groups, both striving for the same results.

All members of County Medical Societies, interested in medical economics and public health, are invited to come to the Conference.

ARE YOU AN EXPERT?

The average physician called into court considers himself an expert witness. Instruction as to the difference between a witness to fact and an expert witness, together with the rights and privileges of a physician in either status, would relieve the medical witness of many embarrassing situations and do much to expedite the progress of the trial.—*"Preparation by Attorneys for Medico-Legal Trials," by J. R. Garner, M. D. Amer. Jour. Med. Juris., (Aug.-Sept.) 1939.*

M.S.M.S. DUES

Dues of the Michigan State Medical Society have not been raised, but remain at $12.00 per annum. The Council was authorized by the House of Delegates to levy an assessment of $5.00 per member to cover emergencies. However, financial matters were so well arranged that no direct assessment or increase in dues was required.

HOW MICHIGAN'S NEW TAX ON INTANGIBLES AFFECTS PHYSICIANS

The Tax

The Intangibles Tax Law was passed by the 1939 Michigan Legislature. The tax applies to property owned during the year 1940, and during each year thereafter. The first tax under this act will be due and payable during the first sixty days following January 1, 1941, on property owned during 1940.

The 1939 Law calls for a specific tax, i.e., the tax is determined by using income or face amount as a measure rather than value. In case the tax is figured on the income, the minimum and maximum amount of the tax is based on the face value of the intangible property.

Example—Dr. A. has income producing property, the face value of which is $10,000.00, which produces an income of 6 per cent, or $600.00 annually. The Intangible Tax on income producing property is 6 per cent of the income, so Dr. A. would determine that 6 per cent of $600.00 is $36.00. The law specifies that the maximum intangible tax on income producing property shall not be in excess of 3/10 or 1 per cent of the face value, which in this case would be $10,000 x .003 or $30.00. Therefore, Dr. A. will be required to pay $30.00 on this particular property.

On the other hand, Dr. B. has the same type of property, same face value, but it produces only 1 per cent, or $100.00 per year. His tax of 6 per cent of income would amount to $6.00. The law provides that the minimum tax for this type of property shall not be less than 1/10 of 1 per cent of the face value, which would be ($10,000 x .001) $10.00. Therefore, Dr. B must pay $10.00 on his property.

If the rate of income would cause the tax to come within the limits of $10.00 and $30.00 (1/10 of 1 per cent minimum and 3/10 of 1 per cent maximum), then the tax is payable at 6 per cent of the income actually received.

The Act displaces the general property tax law insofar as intangible personal property is concerned, and such property will not be subject to tax according to its value or at the general property tax rate. The Act expressly repeals the so-called "Mortgage Tax" and the so-called "Secured Debts Tax." The Michigan State Tax Commission is charged with administration of the Act and periodically is issuing rules and regulations covering the new law.

The term "intangible property" includes, stocks, bonds, notes, debentures, et cetera, real estate mortgages and land contracts, bank deposits, promissory notes, bills of exchange and accounts receivable, chattel mortgages, royalties, interests in trust funds. Of these numerous types of intangible property the two types which apply most generally to physicians are:

(a) **Accounts Receivable.**
(b) **Bank Deposits.**

Accounts Receivable

The State Tax Commission has ruled that "any person liable for any tax under the Act must at all times keep such data as shall be necessary to prepare a tax return and preserve the same, at some place in the State of Michigan available to representatives of the Commission, for a period of not less than three (3) years after the date set for the filing of the return for the tax to which they relate. No particular form of keeping records is required. The records must be sufficient to enable the Commission to ascertain whether the tax for which the taxpayer is liable is correctly computed."

It appears from this rule that if the physician keeps a daily record of charges and credits to his patients, this would satisfy the Commission. Such a record would enable the physician (as well as the Commission) to determine the unpaid face value of accounts receivable for any month in the year or for the whole year, and thus correctly compute the tax. Physicians are urged to keep accurate records to protect themselves.

Early in January, 1941, the State Tax Commission will designate a certain month in 1940 as an average month, on which the taxpayers may compute the tax. However, if the taxpayer feels the particular month designated by the Tax Commission does not truly represent his monthly average, he may, with the permission of the Tax Commission, determine the average values on the basis of semi-annual, quarter-annual, monthly or other periods as will more fairly reflect such true average values.

How the Tax Applies to Accounts Receivable

The unpaid principal amount of the accounts receivable for the particular month selected by the State Tax Commission is determined. From

this, the total of the unpaid principal amount of accounts payable (which are made in the same business as that from which the accounts receivable are derived) for the same month should be deducted. The tax is then computed at the rate of one-tenth of one per cent on the difference, as accounts receivable are non-income producing property.

Example—Dr. Z. has unpaid accounts receivable totalling $10,000 as of the close of the month designated by the Tax Commission. In the same month he has $1,000 accounts payable. He subtracts the $1,000 accounts payable from the $10,000 accounts receivable on his books and computes the tax at .001 on the remaining $9,000. The tax in this case would be $9.00, less the statutory exemption of $7.00, or a net tax of $2.00, providing Dr. Z. had no other intangible property.

If Dr. Z. feels that the month designated by the Commission is unfair to his average for the year, he may request permission from the Commission to use some other method of determining his average, such as taking the average amount on his accounts receivable for the entire year. If he elects to do this, he must also take the average amount of his accounts payable for the same period and follow the same method in computing the tax.

Example—Dr. Z's records show that he had the following balances on his accounts receivable and accounts payable for the year, by months, as follows:

	Accounts Receivable	Accounts Payable
January	$ 5,000	$ 500
February	8,000	500
March	7,000	500
April	10,000	800
May	10,000	1,000
June	10,000	1,000
July	10,000	900
August	10,000	900
September	10,000	800
October	8,000	700
November	10 000	1,000
December	10,000	1,000
Total	$108,000	$9,600

The monthly average value of Dr. Z's accounts receivable is determined to be $9,000 per month; his accounts payable to be $800.00 per month. So, he subtracts $800 from $9,000, and figures his tax at .001 on $8,200 or a tax of $8.20 less the $7.00 exemption of a net tax of $1.20.

Bank Deposits

Bank deposits are also taxable as intangible property. Demand deposits may be considered as accounts receivable if related to his professional business. Each taxpayer is allowed an exemption of $3,000 on bank deposits, no matter if he has several different bank accounts, in one bank or several banks. In the case of joint accounts, the amount owned by each person, and not the entire amount of the account, is considered in determining the exemption.

Example—If a husband and wife (or any other two people) own a bank account jointly, unless there is evidence to the contrary, each is considered to own one-half of the account, and each is entitled to an exemption of $3,000. Thus, if the account totals $10,000, the husband is deemed to own $5,000 of the amount. He is exempt $3,000 if this is the only bank account he owns, so he will be liable for tax on $2,000 of the account. The same is true of the wife.

United States Postal Savings deposits are taxable without exemption, because the exemption applies only to "deposits" in banks.

As bank deposits will vary during the year, the average for the year will be used in determining the amount to be taxed. Here again the taxpayer may use the "average" month to be designated by the State Tax Commission, or he may obtain permission to use some other means of determining the average amount of his bank deposits for the year. In any case, the taxpayer must use the same method of obtaining the average amounts of accounts receivable, bank deposits and accounts payable.

Worthless Accounts

The State Tax Commission has ruled that an account is *all* good or *all* bad. Taxpayers are not allowed to charge off a portion of the account. If the account is worthless, it should be entirely eliminated in making the tax return and computing the tax. However, until there has been an actual bona fide chargeoff or treatment of the account or note by the taxpayer as worthless, it should be shown in the return and the tax computed thereon at the full face amount of the account. Physicians doing work for patients from whom they cannot reasonably expect remuneration, should bear in mind when making charges to these patients that the tax on intangible property will apply for six years if the account is never paid.

Hypothetical Example

Example—Dr. X is advised by the State Tax Commission that the "average" month for 1940 is

(Continued on Page 60)

WHEN A HEAD COLD BEGINS

Case No. 1 (C. S.) Male, white, age 25. Acute head cold. After a few inhalations from 'Benzedrine Inhaler' the turbinates were shrunk to normal within seven minutes.

'Benzedrine Inhaler' is particularly valuable when used at the onset of a head cold—at the very first sneeze. By relieving congestion, it improves respiratory ventilation and assists in maintaining drainage of the nasal accessory sinuses.

The early use of 'Benzedrine Inhaler' is especially indicated for your patients who catch cold easily.

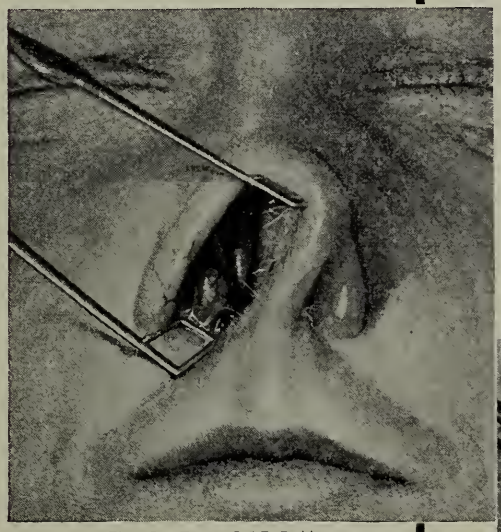
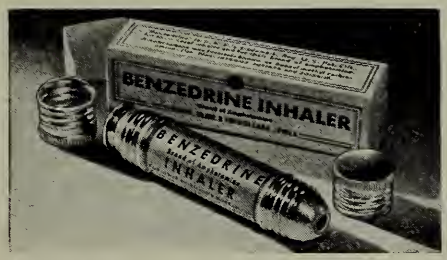


Fig. 1—Time 2:15 P.M.
Before treatment.



Each tube is packed with amphetamine, S. K. F., 325 mg.; oil of lavender, 97 mg.; menthol, 32 mg. 'Benzedrine' is S. K. F.'s trade mark, Reg. U.S. Pat. Off.

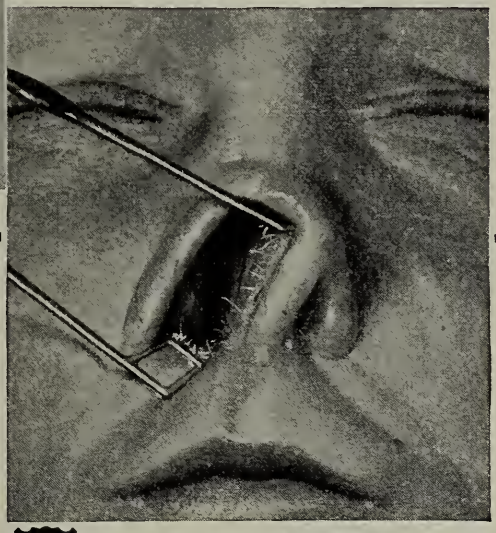


Fig. 2—Time 2:22 P. M.
After using 'Benzedrine Inhaler'.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

BENZEDRINE INHALER

A Volatile Vasoconstrictor

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

EST. SKF 1841

March. He checks his records and finds that at the close of business March 31 he had:

Unpaid Accounts Receivable	$15,000.00	
Less Unpaid Accounts Payable	2,000.00	
Amount taxable		$13,000.00
Bank deposits		
Bank No. 1	$10,000.00	
Bank No. 2	8,000.00	
Total bank deposits	$18,000.00	
Less exemption	3,000 00	
Taxable bank deposits		$15,000.00
Total intangible property taxable		$28,000.00
Per annum at .001 (1/10 of 1%, assuming the above items are non-income producing)		.001
Amount of tax		$ 28.00
Less statutory $7.00 Exemption		7.00
Intangible tax payable to State of Michigan		$ 21.00

In General

Life Insurance policies are not taxable. Taxes payable under the laws of this State, or of the Federal Government, or another state, will not be considered accounts payable under this Act. Physicians who have specific questions re the application of the Law to stocks, bonds, real estate, et cetera, are invited to write the Michigan State Medical Society Executive Office, 2020 Olds Tower, Lansing, for further information.

COUNTY SECRETARIES' CONFERENCE

Program

Ballroom, Olds Hotel, Lansing—Sunday, January 21, 1940

Morning Session—10:00 a. m.-12:45 p.m.

O. O. Beck, M.D., Birmingham, Presiding

1. Round Table on "Relief Medicine"
   G. L. McClellan, M.D., Detroit
   Paul W. Kniskern, M.D., Grand Rapids
   L. O. Shantz, M.D., Flint
   Discussion Leader: L. G. Christian, M.D., Lansing
2. Round Table on "Michigan Medical Service"
   A. S. Brunk, M.D., Detroit
   V. M. Moore, M.D., Grand Rapids
   H. H. Cummings, M.D., Ann Arbor
   Discussion Leader: H. R. Carstens, M.D., Detroit
3. "The Crippled-Afflicted Child Laws"
   L. Fernald Foster, M.D., Bay City
4. Election of a Chairman of County Secretaries for 1940.

Joint Meeting with Public Health Officers

Refreshments and Noonday Dinner

Afternoon Session—2:30 p. m.

Henry Cook, M.D., Flint, Presiding

5. Address—Speaker invited.
6. Round Table on "Participation of Physicians and Health Departments in Preventive Medical Programs":
   H. A. Moyer, M.D., State Health Commissioner, Lansing
   Albert McCown, M.D., Deputy Health Commissioner, Lansing
   L. O. Geib, M.D., Chairman, Preventive Medicine Committee, M.S.M.S., Detroit
   L. Fernald Foster, M.D., Secretary, M.S.M.S., Bay City
   M. R. Kinde, M.D., W. K. Kellogg Foundation, Battle Creek
   B. W. Carey, M.D., Children's Fund of Michigan, Detroit
   J. D. Bruce, M.D., Chairman, Postgraduate Medical Education Committee. Ann Arbor
   Henry F. Vaughan, Dr. P. H., President, Michigan Public Health Association, Detroit

SMALL FEES

In the year 1937-38 the average cost of crippled children cases was $155.00 per case, of which 17 per cent went to the orthopedists.

The average cost of the afflicted children cases was $74.18 per case, of which 34 per cent went to physicians.

READING NOTICES

VITAMIN D

Winter sunshine in most sections of the country averages 10 to 50 per cent less than summer sunshine. The quality of the available sunshine is inferior due to the shorter distance of the sun from the earth altering the angle of the sun's rays. Again, the hour of the day has an important bearing: At 8:30 A. M. there is an average loss of over 31 per cent and at 3:30 P. M., over 21 per cent. All of us, especially baby, are shut in from the fullest vitamin D value of sunlight.

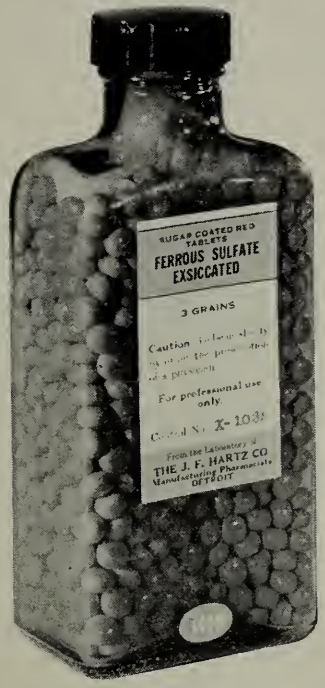
While neither Mead's Oleum Percomorphum nor Mead's Cod Liver Oil Fortified With Percomorph Liver Oil constitutes a substitute for sunshine, they do offer an effective, controllable, non-varying supplement, especially important because the only natural foodstuff that contains appreciable quantities of vitamin D is egg-yolk.

PNEUMONIA

In summarizing the great advances that have been made in the development of sulfonamide derivatives for the treatment of bacterial infections, Lord (New England J. Med., 221:570, 1939) points out that reduction in the fatality rate of pneumonia from 25 per cent to 7 per cent has been brought about in a large group of adults treated with sulfapyridine. The combined use of sulfapyridine and antiserum will doubtless prove more effective than either alone.

It is desirable to begin treatment with sulfapyridine as soon as the diagnosis is established. In treating a case with sulfapyridine, it is helpful to make daily determinations of the level of sulfapyridine in the blood. From 3 to 6 mg. per cent of the free drug is ordinarily sufficient for the desired chemotherapeutic effect. Upon the request of physicians, Eli Lilly and Company will supply a pamphlet which includes an outline of this method, as well as full details of the treatment.

FERROUS SULFATE EXSICCATED TABLETS

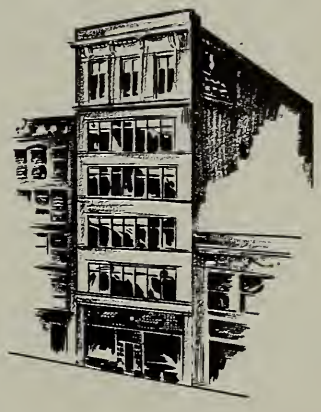


Recent investigation has revealed **Ferrous Sulfate, Exsiccated** as a highly effective form of iron for use in hemoglobin formation. (It is said to be about 8 to 10 times as effective as Iron & Ammonium Citrate.)

Because **iron** is absorbed chiefly in the duodenum and possibly in the stomach, this tablet is coated—but **not** enteric coated. It is available as **Ferrous Sulfate,** Exsiccated 3 grain tablets at $2.00 per M.

Indicated for: Secondary Anemia
Chlorosis
Iron Deficiency

Dosage: 1 to 2 tablets T. I. D., preferably immediately after meals.

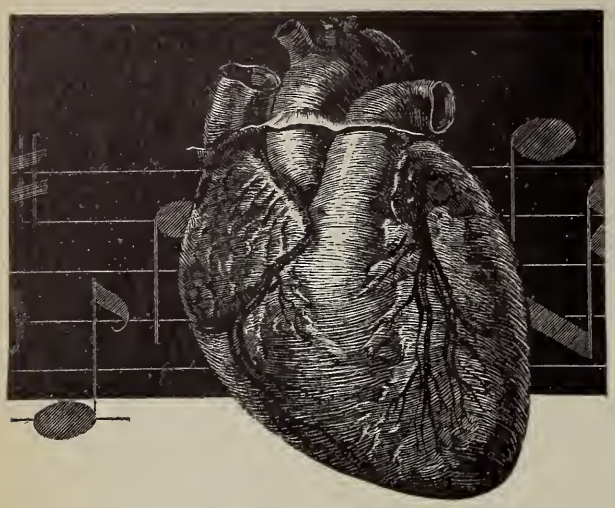


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DIASTOLE • SYSTOLE
RHYTHM

Prompt strengthening of contractions and maintenance of cardiac rhythm with Digifoline, "*Ciba*" have been shown in thousands of cases. Containing purified principles of uniform strength, Digifoline* exerts prompt, dependable action. One tablet, one cc. of liquid, or one ampule (2 cc.) ** is equivalent in active glucosides to approximately 1½ grains of high-grade digitalis leaf. Oral, intravenous, intramuscular or rectal administration.

DIGIFOLINE

(digitalis glucosides)

—useful in auricular fibrillation, congestive circulatory failure, loss of cardiac tone, etc.

*Trade Mark Reg. U.S. Pat. Off. Word "Digifoline" identifies the product as digitalis glucosides of Ciba's manufacture.

**Each equivalent to one cat unit.

SEE N.N.R. *for description of rigorous, scientific method of Digifoline manufacture.*

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SUMMIT, NEW JERSEY

C · I · B · A

Woman's Auxiliary

PRESIDENT'S MESSAGE

FIRST, I most sincerely wish that the New Year brings all members of the Auxiliary and the members of the Michigan State Medical Society generous amounts of Good Health and Prosperity.

Second, let me reiterate my New Year's Resolution that I shall work unceasingly, with the help of other members of the Woman's Auxiliary, for the creation of a permanent Secretary of the Woman's Auxiliary to the Michigan State Medical Society.

Third, my attendance at the National Meeting of the Woman's Auxiliary to the A.M.A. in Chicago on November 17-18 resulted in my gaining many valuable contacts for our organization, great personal stimulation, and some excellent ideas.

I found that all states have Woman's Auxiliaries except nine. Thirty-six members answered to the roll call at the Palmer House when the National President, Mrs. Packard, called the meeting to order. The President urged all members to be guided by (a) the Constitution and By-Laws; (b) the Advisory Board. I was personally gratified to hear the National Advisory Board recommendation that a permanent Secretary be appointed! Pennsylvania leads in organization, with New York taking a close second. The National Secretary urged that members send in any outstanding activities to the State Historian, for future reference and historical use.

Other reports were of value to the M.S.M.S. Woman's Auxiliary as they contained suggestions for better organization and more beneficial activity.

Respectfully submitted,
MARY C. CHRISTIAN, *President.*

TREASURER'S MESSAGE

Your new State Treasurer sends greetings to all of our members and also wishes to express appreciation for the honor conferred upon her. Since the function of the treasurer is the collection and disbursement of money it becomes necessary to discuss the matter of dues.



As before, one dollar must be forwarded to the State Treasurer for each member. The State Treasurer retains seventy-five cents and forwards twenty-five cents to the National Treasurer. The National dues must be paid by March 3, 1940. Since money is painfully necessary to run an organization of our magnitude, this message is directed chiefly to the County Treasurers, but obviously each individual, by paying her dues promptly, can greatly help the local officer.

Printed forms for membership records and remittance blanks will soon be received from national headquarters and will be sent immediately to all the County Treasurers. Meanwhile it is urged that the collection of dues be commenced as soon as possible.

With best wishes for the coming year and apologies for the emphasis on monetary matters, I am,

Very sincerely yours,
(Mrs. Wm. J.) LINDA I. BUTLER,
State Treasurer.

BRIEFS

Bay County: The Bay County Auxiliary held its first meeting this fall at the Elks' Club, Bay City. It was a dinner meeting with twenty-five members present. On October 24, members were very graciously entertained by the Saginaw County Auxiliary at a luncheon and bridge at the Bancroft Hotel in Saginaw.

Calhoun County: Forty members met at the home of Mrs. Clifford Brainard for a dinner meeting Nov. 7, 1939. The business meeting was called to order by the president, Mrs. Leland Keagle.

Committees investigating various projects reported their findings and as a result the Auxiliary voted the following expenditures:

1. For improvement of the Hannah Swift Memorial Home for the Nurses of Community Hospital.....$100.00
2. To the Calhoun County Crippled Children's Fund.. 100.00
3. To the Michigan Children's Aid Society's Christmas activities 100.00
4. To the Nurses' Training School of each hospital, Leila and Community, $10.00 for a Christmas party 20.00

Eaton County: The November meeting was held at Fisher's in Charlotte. Following dinner the meeting was called to order by the president, Mrs. F. W. Sassaman. The White Elephant sale followed, the proceeds to be used to help on the yearly quota for the Home Delivery Service of the Eaton County Health Department. The Medical Society entertained the Auxiliary at the annual Christmas party in December.

Genesee County: The November meeting was held on the 29th at the Desden Hotel, places being laid for thirty-four. Mrs. C. N. Richeson and her committee reported the sum of ninety-three dollars obtained for the Red Cross.

A Thanksgiving basket of food in addition to clothing was given by the Auxiliary to an indigent family, and plans were made to send a Christmas basket of food, toys, and clothing.

The president, Mrs. Gordon Willoughby, gave a report on the State Board Meeting, which she attended in Lansing.

Jackson County: Mrs. W. L. Finton was hostess at the meeting held November 21. Guests at this meeting were Mrs. H. H. Cunmings and Mrs. R. W. Teed of Ann Arbor. Each spoke briefly regarding the successful functioning of the Auxiliary of the Washtenaw Medical Society.

A project for the year was discussed. Many members are coöperating in the Red Cross emergency call, knitting sweaters for Polish refugees.

Kent County: The November meeting was presided over by the new president, Mrs. Alexander M. Campbell. The guest speaker was Rabbi Jerome K. Folkman, who reviewed John Steinbeck's "Grapes of Wrath." The hostesses for the tea were Mrs. J. P. March and Mrs. Joseph de Pree.

Lapeer County: On November 3, Dr. and Mrs. F. R. Hanna entertained the Lapeer County Medical Society and the Auxiliary for dinner at the Michigan Home and Training School.

After dinner new officers were elected as follows: President, Mrs. David Burley; vice president, Mrs. F. R. Hanna; secretary, Mrs. A. T. Rehn; chairman of flower fund, Mrs. J. R. McBride; press chairman, Mrs. D. J. O'Brien, and advisor, Dr. H. M. Best.

Monroe County: The Auxiliary attended dinner at the First Evangelical Church on November 16, then held a meeting and played bridge at the home of Mrs. Dean C. Denman.

SILVER PICRATE *Wyeth's*

has shown a

CONVINCING RECORD OF EFFECTIVENESS *in* ACUTE ANTERIOR URETHRITIS

due to Neisseria gonorrheae

The record is based on rigid clinical and laboratory signs before and after treatment.*

1. Fresh smear
2. Fermentation of dextrose
3. Acid formation in maltose
4. Agglutination test
5. Alkali solubility test

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in Anterior Urethritis: Wyeth's Silver Picrate Crystals used in an aqueous solution of 0.5 percent.

Supplied at all pharmacies in vials of 2 grams

Complete literature on Silver Picrate as used in genito-urinary and gynecological practice will be mailed on request.

*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

JOHN WYETH AND BROTHER, INC. • PHILADELPHIA, PA.

MICHIGAN'S DEPARTMENT OF HEALTH
HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

PERTUSSIS VACCINE AVAILABLE

Pertussis vaccine (Kendrick) is obtainable by physicians without cost in the same manner as all other biologics distributed by the State Health Department. Vaccination of children against whooping cough is recommended at three to six months of age.

REGIONAL CONFERENCE

The third regional conference of health departments in the western Michigan area was held at Muskegon, December 11, with Dr. R. J. Harrington, director of the Muskegon County Health Department, as host. Speakers at this conference included Dr. Lillian R. Smith, director of Maternal and Child Health; Miss Marjorie Delavan, director of Education; and Dr. William R. Davis, director of Public Health Dentistry for the State Health Department.

MEASLES

The season for measles has begun. Although there probably will not be a major epidemic in Michigan as a whole during this winter, there are areas in the state where the incidence of the disease is already assuming epidemic proportions.

The greatest number of deaths from measles occurs in children under two years of age. Parents should be warned to guard against exposure of such children to the disease. If exposure has occurred, immune globul'n* in doses of 4 to 10 c.c. given intra-muscularly, two or three days after such exposure will produce passive immunity for a short time. Such treatment may be advisable for infants and children in a debilitated state of health. In most instances it will be desirable to modify the severity of the symptoms and the risk of complications by the administration of 2 to 4 c.c. of immune globulin on the sixth or seventh day after exposure.

PEDIATRICS SURVEY IN GENESEE COUNTY

Dr. Warren E. Wheeler, Pediatric Consultant for the Bureau of Maternal and Child Health, has been assigned to Genesee County where he will make a survey of still births, neonatal deaths and deaths occurring during the first year of life. This survey is sponsored by the Preventive Medicine Committee of the Genesee County Medical Society, the Advisory Medical Committee of the Clara Elizabeth Fund, and the city and county health departments.

MATERNAL AND CHILD HEALTH

Regional consultants have been assigned by the Bureau of Maternal and Child Health to assist full-time health officers in the organization of maternal and child health activities in local areas. Dr. Marie Hagele, Manistique, has been named as the Upper Peninsula consultant. The consultant for the northern Lower Peninsula will be Dr. Emily Ripka, Lansing. Dr. Berneta Block (on leave of absence) will be the consultant for Southern Michigan.

POSTGRADUATE SCHOLARSHIPS

Physicians receiving scholarships for two weeks of intensive postgraduate study in obstetrics and allied subjects at the University of Michigan during January include Dr. Robert Farrier, Ludington; Dr. C. A. Paukstis, Ludington; Dr. Lynford Miller, Adrian; Dr. C. E. Johnson, Hillsdale; Dr. Robert A. Ostrander, Ludington; Dr. Ellery A. Oakes, Manistee; Dr. D. F. Scott, Sault Ste. Marie; and Dr. G. B. Hewes, Adrian. Applications for these scholarships should be addressed to Dr. Lillian R. Smith, State Health Department at Lansing.

**Not supplied by the State Health Department.*

DIRECTORY OF HEALTH OFFICERS

A new directory of county and district health officers in Michigan has been prepared by the Michigan Department of Health. Physicians desiring a copy of this directory may obtain one free upon request to the Department at Lansing.

NEW BIRTH AND DEATH CERTIFICATES ISSUED JANUARY 1, 1940

The new certificates require the reporting of the actual residence as well as the actual place of birth and place of death. The only other major change is the requirement of reporting the Social Security number, if any, of the deceased on the death certificate. Certain supplementary data concerning complications of pregnancy and labor may be reported on the reverse side of the birth certificate, but this is not required as a part of the legal certificate.

OCCUPATIONAL DISEASES

In Michigan's Occupational Disease Law (Act No. 61 of 1937), disabilities arising from the following schedule must be treated as occupational diseases:

1. Anthrax
2. Lead poisoning or its sequelæ
3. Zinc poisoning or its sequelæ
4. Mercury poisoning or its sequelæ
5. Phosphorus poisoning or its sequelæ
6. Arsenic poisoning or its sequelæ
7. Poisoning by wood alcohol
8. Poisoning by benzol or nitro-, hydro-, hydroxy-, and amido-derivatives of benzene (dinitro-benzol, anilin, and others), or its sequelæ
9. Poisoning by carbon bisulphide or its sequelæ, or any sulphide
10. Poisoning by nitrous fumes or its sequelæ
11. Poisoning by nickel carbonyl or its sequelæ
12. Dope poisoning (poisoning by tetrachlormethane or any substance used as or in conjunction with a solvent for acetate of cellulose or nitro cellulose), or its sequelæ
13. Poisoning by formaldehyde and its preparations
14. Chrome ulceration or its sequelæ or chrome poisoning
15. Epitheliomatous cancer or ulceration of the skin or of the corneal surface of the eye, due to tar, pitch, bitumen, mineral oil or paraffin, or any compound, product or residue of any of these substances
16. Glanders
17. Compressed air illness or its sequelæ
18. Miners' diseases, including only cellulitis, bursitis, ankylostomiasis, tenosynovitis and nystagmus
19. Cataract in glassworkers
20. Radium poisoning or disabilities due to radio-active properties of substances or to roentgen rays (x-rays)
21. Methyl chloride poisoning
22. Carbon monoxide poisoning
23. Poisoning by sulphuric, hydrochloric or hydrofluoric acid
24. Respiratory, gastro-intestinal or physiological nerve and eye disorders due to contact with petroleum products and their fumes
25. Disability arising from blisters or abrasions
26. Disability arising from bursitis or synovitis
27. Dermatitis (venenata)
28. Hernia
29. Stone worker's or grinder's phthisis
30. Silicosis
31. Pneumoconiosis.

IN MEMORIAM

Franklin J. Cushman, M.D.

Dr. Franklin J. Cushman of Lansing, Michigan, died September 18, 1939, following a long illness. He was born in Leroy Township, Ingham County, Jan. 3, 1898. He graduated from the Wayne University School of Medicine in 1921. Due to his illness, Dr. Cushman had not practiced for eight years. He was a member of the Ingham County Medical Society, Michigan State Medical Society, American Medical Association and the American Urological Association.

Walter L. Hackett, M.D.

Dr. Walter L. Hackett passed away November 4, 1939. He was born in Huron County, Ontario, on March 30, 1881. He studied medicine at the University of Toronto and received his degree from Wayne University in 1913. He did extensive postgraduate work in London, Edinburgh, and elsewhere. For the past quarter of a century, he served on the Staff of Woman's Hospital and St. Mary's and Receiving Hospitals as Attending Surgeon and Consulting Gynecologist.

Samuel Osborn, M.D.

Dr. Samuel Osborn of Lansing, Michigan, who died on December 4, 1939, from a coronary thrombosis, was born on Sept. 24, 1866, at Manchester, Michigan. In 1889, he was graduated from the University of Michigan and taught school for about ten years. He then returned to the University and graduated in medicine in 1903 and came to Lansing to practice. Dr. Osborn helped organize the Ingham County Medical Society and the Michigan State Medical Society. He was a fellow of the American Medical Association and the American College of Physicians.

New York, Nov. 30—Violation of the code of legal ethics was the charge made here today against the Department of Justice for attempting to influence public opinion while a case is pending in Federal court. The allegation is contained in the December 1 issue of the *New York State Journal of Medicine,* official organ of 16,700 practicing physicians of the state.

The charge is based upon the twentieth rule in the Canon of Professional Ethics of the American Bar Association, which provides that public statements by a lawyer as to pending or anticipated litigation may interfere with a fair trial in the courts and otherwise prejudice the due administration of justice.

The *Journal* commends this rule of the ethics to the attention of Assistant Attorney General Thurman Arnold and his associates in the anti-trust suit against the American Medical Association. "From the outset of this action," states the *Journal,* "the Department of Justice's representatives have shown a blatant disregard of the ethical canon cited above and other rules of good manners.

"In certain circumstances it is conceivable that a lawyer in the government's employ cannot be bound by the same ethical principles as attorneys in private practice. Certainly, there is nothing in the anti-trust suit against the A.M.A., however (except the palpable artificiality of the charge), to account for the disregard of legal ethics that Mr. Arnold and some of his associates have displayed."

—From *Medical News,* Medical Society of the State of New York.

First Aid for Enjoyment!

To sit and sip a Johnnie Walker and soda is to know the true enjoyment of a really great Scotch. For there's no finer whisky than Scotch and Johnnie Walker is Scotch at its smooth, mellow best!

IT'S SENSIBLE TO STICK WITH

Johnnie Walker

BLENDED SCOTCH WHISKY



RED LABEL
8 years old
BLACK LABEL
12 years old
Both 86.8 proof

BORN 1820 . . .
still going strong

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SOLE IMPORTER

✶ COUNTY AND PERSONAL ACTIVITIES ✶

Mid-Winter Meeting of The Council, Michigan State Medical Society, will be held in Detroit, Saturday and Sunday, January 13 and 14.

* * *

If you dispense, be sure you are complying with the Federal Food, Drug and Cosmetic Act, Sec. 502B.

* * *

"Neonatal Asphyxia" is the title of an article appearing in *The Journal of the American Medical Association,* issue of December 2, 1939, written by W. C. C. Cole, M. D., David C. Kimball, M. D., and L. E. Daniels, M. D., of Detroit.

* * *

C. D. Selby, M. D., Detroit, past-president of the Ohio State Medical Association, has been appointed to the Committee on Industrial Health of the MSMS by President Corbus. Doctor Selby is a member of the AMA Council on Industrial Health.

* * *

The Community Health Center of Branch County formally opened its new hospital in Coldwater on Saturday November 18, 1939. Physicians of the surrounding territory were invited to inspect the facilities of the hospital on November 18 and 19.

* * *

L. Fernald Foster, M.D. and Wm. J. Burns addressed a district meeting of the Huron-Sanilac, Lapeer and St. Clair County Medical Societies on December 14 in Imlay City. The meeting was arranged by T. E. DeGurse, M. D., Marine City, Councilor of the 7th District.

* * *

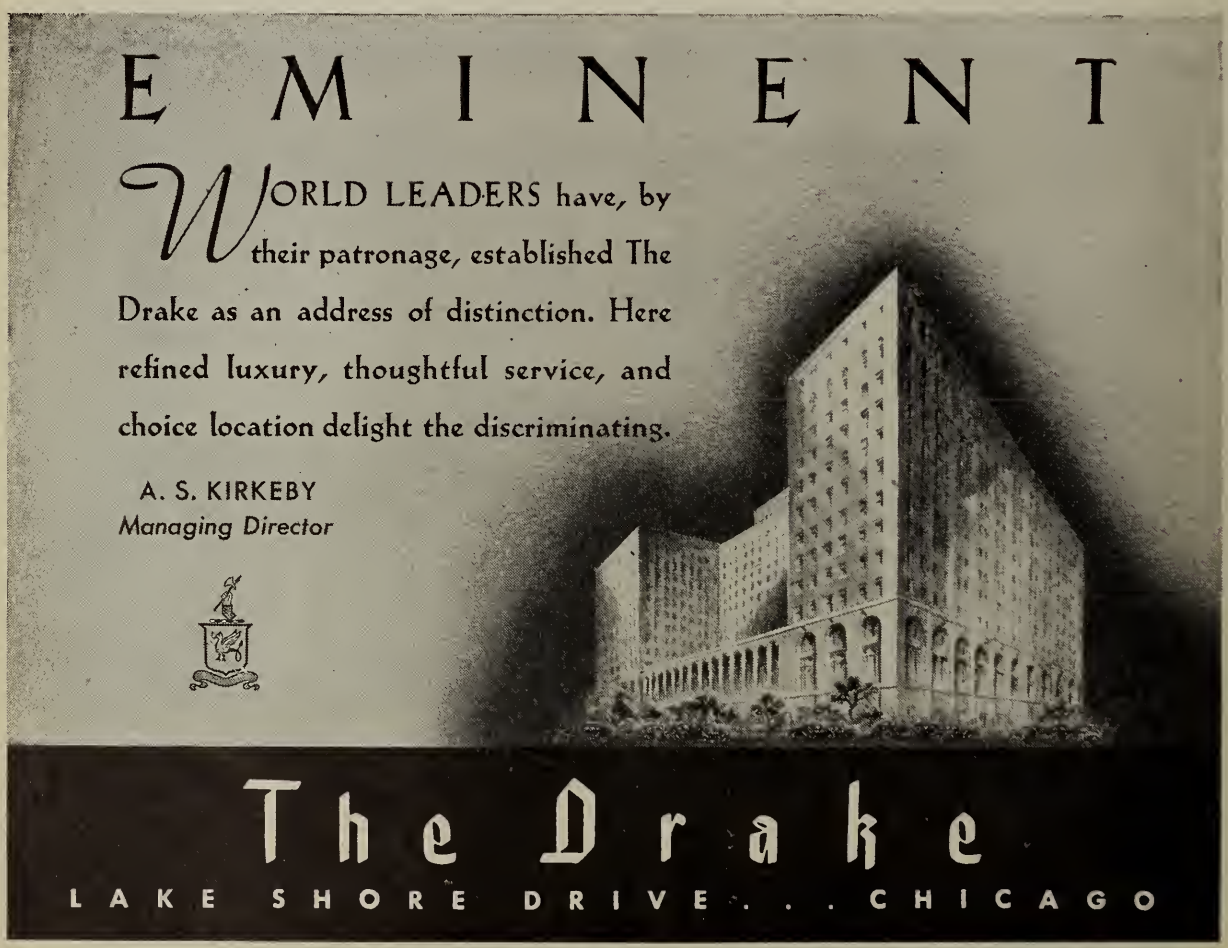
"The Prevention of Carotene Absorption by Liquid Petrolatum" by A. C. Curtis, M. D. and Robert S. Ballmer, M. D., Ann Arbor; and "The Treatment of the Patient with Severe Burns" by Roy D. McClure, M. D., Detroit, were papers appearing in *The Journal of the American Medical Association,* issue of November 11, 1939.

* * *

Clement H. Bramble of Lansing, Master of the Michigan Grange for the past 7 years, was killed in an automobile accident near Charlotte on December 4. Officers and members of the Michigan State Medical Society, who have known Mr. Bramble and worked with him, keenly feel the loss sustained by his sudden passing.

* * *

The Second Midwestern Forum on Allergy, will be held in Chicago at the Palmer House, January 13 and 14, 1940, according to Jonathan Forman, M. D. of Columbus, Ohio. All members of the Michigan State Medical Society are invited to attend this conference. For a complete program write Jonathan Forman, M. D., 1005 Hartman Theater Building, Columbus, Ohio.



The Second Annual Congress on Industrial Health will be held at the Palmer House, Chicago, January 15 and 16, 1940. General subjects for discussion will include "Syphilis in Industry", "Physical Examinations", and "Disability Evaluation". The Congress is sponsored by the American Medical Association and all members of the Michigan State Medical Society are cordially invited to attend.

* * *

Officers of the Michigan State Medical Society discussed "Michigan Medical Service" at a special meeting of the Ingham County Medical Society on November 30. Henry R. Carstens, M. D., A. S. Brunk, M. D., and L. Fernald Foster, M. D., Chairman, Vice-Chairman and Secretary of The Council spoke on various phases of the plan. Messrs. J. D. Laux and Wm. J. Burns also discussed the plan. The state society officers were accorded a vote of confidence by the Ingham County Society of which 115 members were present.

* * *

Openings for young physicians.—The Sixth Corps Area (Illinois, Michigan, and Wisconsin) has openings for physicians in the Civilian Conservation Corps. Recently the pay of civilian physicians employed in the CCC has been raised to $3,200 per year. Preference will be given to officers of the Medical Reserve Corps of the Army in making appointments, but many vacancies occur which are filled by physicians who do not hold Reserve commissions. Physicians interested in such appointments should write Surgeon, Sixth Corps Area, Room 1040, U. S. Post Office Building, Chicago.

* * *

"Medical Insurance" was the subject of Mr. J. D. Laux's address before the St. Johns Women's Club on December 6. Mr. Laux is scheduled to speak before the Jackson Federation of Women's Clubs on January 12, 1940, using the subject "State Managed Medicine versus Michigan Medical Service." The Woman's Auxiliary of the Ingham County Medical Society will hear Mr. Laux discuss "Michigan Medical Service" on January 18, 1940. On March 8, 1940, Mr. Laux will address the Woman's Auxiliary of the Wayne County Medical Society on "Highways and Horizons of Medicine Abroad".

* * *

Doctor, remember your particular friends, the exhibitors at your Annual Convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten of the firms which helped make the 1939 Convention such a great success:

Detroit X-Ray Sales Co., Detroit
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* * *

The Eighth American Scientific Congress will be held in Washington, D. C. from May 10 to 18, 1940 under the auspices of the Government of the United States of America.

This series of inter-American meetings, serving as a medium for the exchange of scientific information of particular interest and importance to the governments and peoples of the Americas has enjoyed a long and distinguished history dating from the first Latin American Scientific Congress held at Buenos Aires in April 1898 in commemoration of the Silver Jubilee of the Argentine Scientific Congress.

The Government of the United States of America attaches particular significance to the forthcoming Congress as an important factor in the promotion of cooperative effort among the governments and peoples of the Americas. It is sincerely hoped that



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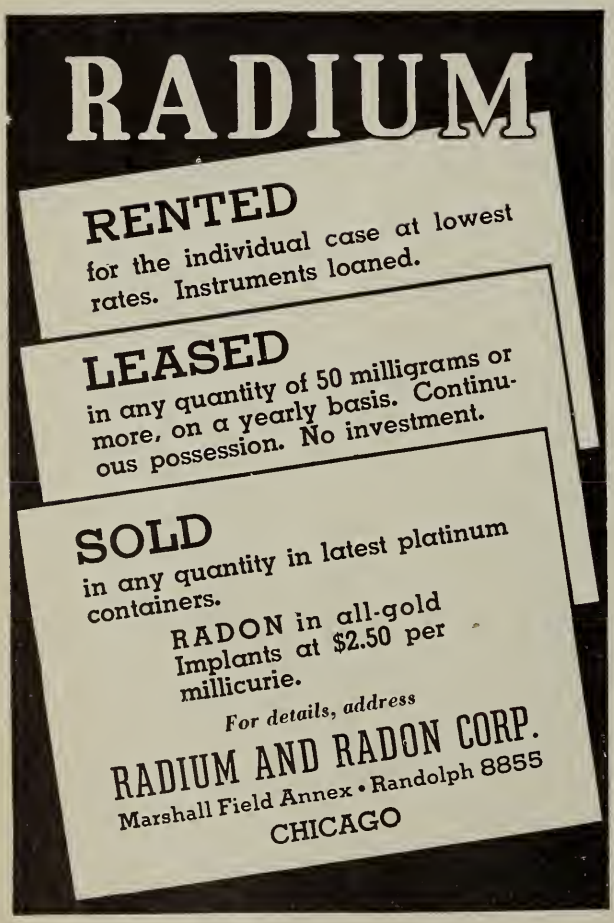
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prominent scientists throughout the continent may be in a position to contribute to the achievements of the Congress by bringing to the discussions the wealth of their knowledge and experience, while enjoying the opportunity of renewing old and making new friendships among the other delegates present on this occasion.

* * *

1940 Annual County Secretaries Conference will be held in Lansing, January 21. A unique program has been arranged for the secretaries. The morning session will be a round-table discussion of Michigan Medical Service, Afflicted-Crippled Child Problems, Postgraduate Medical Education, and Scientific Program Arrangement.

The afternoon meeting, beginning with noonday dinner, will be a joint session with the health officers of the State, called to Lansing by State Health Commissioner H. Allen Moyer, M. D. Problems of preventive medicine, immunization, and new and modern procedures and developments in the field of public health will be presented to the joint group. This joint meeting will be the first of its kind in Michigan, and bodes well for future cooperation and united accomplishment by the medical and health groups, both striving for the same results.

* * *

"Grangers Oppose State Medicine" was the banner headline carried by many newspapers in November. The stories, covering the Grange National Convention, told that the National Grange is opposed to any form of compulsory health insurance under the federal government, but is favorable to voluntary insurance provided by private organizations, such as the Michigan plan. Dr. Dora H. Stockman, East Lansing, member of the Michigan Legislature, leader in the Michigan Grange, and member of the Board of Directors of Michigan Medical Service, is quoted extensively in a number of articles re the Michigan plan.

The National Grange representing nearly 1,000,000 farm people, on November 23 at its meeting in Peoria, Illinois, went on record opposing the fundamentals of federal controlled health insurance. The resolution which was adopted without debate follows: "We oppose any form of socialized medicine which would be administered by any branch of government, regardless of the cooperation or interest of those for whom the service was provided. This is not opposition or condemnation of cooperation efforts for providing medical care by the people themselves."

* * *

Council and Committee Meetings

Thursday, November 2—Syphilis Control Committee—Hotel Olds—Lansing—5:00 p. m.

Thursday, November 2—Publication Committee of The Council—Hotel Olds—Lansing—7:30 p. m.

Friday, November 3—Tuberculosis Control Committee—Herman Kiefer Hospital—Detroit—2:30 p. m.

Friday, November 3—Industrial Health Committee—WCMS Bldg.—Detroit—6:30 p. m.

Monday, November 6—Maternal Health Committee—Hotel Olds—Lansing—12:15 p. m.

Tuesday, November 7—Cancer Committee—Ann Arbor—6:30 p. m.

Wednesday, November 8—Postgraduate Medical Education Committee—Pantlind Hotel—Grand Rapids—12:00 noon.

Wednesday, November 8—Heart and Degenerative Disease Committee—Pantlind Hotel—Grand Rapids—2:30 p. m.

Wednesday, November 8—Mental Hygiene Committee—Pantlind Hotel—Grand Rapids—3:00 p. m.

Wednesday, November 8—Preventive Medicine Committee—Pantlind Hotel—Grand Rapids—4:00.

Wednesday, November 15—Executive Committee with Michigan Crippled Children Commission—Hotel Statler—Detroit—2:30 p. m.

Saturday, November 25—Industrial Health Committee—WCMS Building—Detroit—6:30 p. m.
Sunday, November 26—Committee on Distribution of Medical Care—Hotel Statler—Detroit—2:30 p. m.
Wednesday, November 29—Child Welfare Committee—WCMS Building—Detroit—3:30 p. m.
Wednesday, November 29—Industrial Health Committee with J. D. Bruce, M. D.—Ann Arbor—3:00.
Wednesday, November 29—Membership Committee—Hotel Porter—Lansing—3:00 p. m.
Thursday, November 30—Executive Committee of The Council—Hotel Olds—Lansing—4:00 p. m.
Sunday, December 3—Publication Committee of The Council—Hotel Olds—Lansing—5:00 p. m.
Tuesday, December 5—Executive Committee of The Council—Hotel Statler—Detroit—9:00 a. m.
Friday, December 15—Executive Committee of The Council—Hotel Olds—Lansing—4:30 p. m.

* * *

New Officers of County Medical Societies

Gratiot-Isabella-Clare:
President: R. L. Strange, M.D., Mt. Pleasant
President-Elect: R. L. Waggoner, M.D., St. Louis
Secretary-Treasurer: C. F. DuBois, M.D., Alma
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President-Elect: Leon F. Cobb, M.D., Pontiac
Secretary: John S. Lambie, M.D., Birmingham
Treasurer: Harold A. Furlong, M.D., Pontiac
Delegates: Richard Olsen, M.D., Pontiac; C. F. Ekelund, M.D., Pontiac; Geo. A. Sherman, M.D., Pontiac
Alternate Delegates: Harold Roehm, M.D., Birmingham; Aaron D. Riker, M.D., Pontiac; Robert Baker, M.D., Pontiac

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President: L. F. Bates, M.D., Durand
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Secretary: R. J. Brown, M.D., Owosso
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Secretary-Treasurer: B. A. Holm, M.D., Cadillac
Delegate: W. Joe Smith, M.D., Cadillac
Alternate Delegate: John F. Gruber, M.D., Cadillac

* * *

The National Conference on Medical Service (formerly the Northwest Regional Conference), will hold its 14th Annual Meeting at the Palmer House, Chicago, Sunday, February 11, 1940. All state medical societies have been invited to send representatives to the Conference, designed to provide a medium for the verbal exchange of information on progressive medical service activities being conducted throughout the United States, and to discuss the solution of problems arising from the distribution of medical service to all classes. The Conference is not official nor political, is not connected with any other organization or committee, and its deliberations result in no resolutions or motions. It is informal, has no dues, by-laws, or formal organizational structure.

The Conference has been successful because it affords an opportunity for physicians who are officially associated with or personally interested in medical economics, to exchange ideas for the good of the profession and the public.

The 1940 program, designed to give sound, practical information, includes symposia on group medical care and group hospitalization programs, the allocation of federal funds to the states, the Washington scene, effective public relations by physicians, and medical welfare programs (including the federal assistance groups, outdoor relief group, and medical and surgical care in hospitals).

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Seventeen men, representing as many states in the Union, will be on the program of this one-day meeting. It is anticipated that some thirty-five states will send representatives to the Conference.

All talks will be presented verbally—no manuscripts allowed—and will begin and end on time. The meeting will start at 10:00 a. m. and end at 4:15 p. m.

Past officers of the organization are Wm. F. Braasch, M. D., Rochester, Minnesota; C. B. Wright, M. D., Minneapolis, Minnesota; Otho Fiedler, M. D., Sheboygan, Wisconsin; J. F. D. Cook, M. D., Langford, S. Dakota; Benjamin F. Bailey, M. D., Lincoln, Nebraska; Philip H. Kreuscher, M. D., Chicago, Illinois; Oliver J. Fay, M. D., Des Moines, Iowa; R. L. Sensenich, M. D., South Bend, Indiana; Carl F. Vohs, M. D., St. Louis, Missouri; E. A. Meyerding, M. D., St. Paul, Minnesota; and J. George Crownhart, Madison, Wisconsin.

L. Fernald Foster, M. D., Bay City, Michigan, is President of the National Conference; and Forrest L. Loveland, M. D., Topeka, Kansas, is Secretary.

* * *

COUNTY MEDICAL SOCIETY MEETINGS

Bay County—November 15—Bay City—Speaker: H. M. Pollard, M. D., Ann Arbor. November 29—Program: Obstetrical moving pictures by J. B. DeLee, M. D., Chicago.

Calhoun County—December 5—Battle Creek—Speaker: Hon. James Cleary.

Eaton County—November 16—Charlotte—Speaker: L. E. Verity, M. D., Battle Creek.

Ingham County—November 21—Lansing—Speaker: Gordon B. Myers, M. D., Detroit.

Ionia-Montcalm—November 14—Greenville—Speakers: Merrill Wells, M. D., and Carl F. Snapp, M. D. of Grand Rapids. December 5—Belding—Speaker: Alexander M. Campbell, M. D., Grand Rapids.

Jackson County—November 21—Jackson—Speaker: O. R. Yoder, M. D., Ypsilanti.

Kalamazoo County—November 21—Kalamazoo—Speaker: Evan Shute, M. D., London, Ontario.

Kent County—November 22—Grand Rapids—Speakers: M. W. Shellman, M. D., and Geo. T. Aitken, M. D. of Grand Rapids. December 13—Grand Rapids—Annual Meeting.

Lenawee County—November 21—Adrian—Speaker: Arthur C. Curtis, M. D., Ann Arbor.

Muskegon County—November 17—Muskegon—Speaker: Carl E. Badgley, M. D., Ann Arbor. December 8—Muskegon—Annual Meeting.

Oakland County—December 6—Annual Meeting.

St. Clair County—November 28—Port Huron—Speakers: Harold S. Little, M. D. and C. F. Sullivan, M. D., of London, Ontario. Physicians of Sarnia, Ontario, were invited guests.

Washtenaw County—November 14—Ann Arbor—Program: A Clinical Pathological Conference conducted by Carl V. Weller, M. D., Ann Arbor. December 12—Ann Arbor—Speaker: Mr. John D. Laux of Lansing.

Wayne County—November 13—Detroit—Speakers: Edgar E. Martmer, M. D., Franklin H. Top, M. D., J. A. Kasper, M. D., and A. D. LaFerte, M. D., all of Detroit. November 20—Detroit—Annual Feather Party. November 27—Detroit—Speaker: Claude S. Beck, M. D., Cleveland. December 4—Detroit—Program "Your Business". Speakers: Burton R. Corbus, M. D., Grand Rapids; Henry A. Luce, M. D., Detroit; L. Fernald Foster, M. D., Bay City; Henry R. Carstens, M. D. and A. S. Brunk, M. D., of Detroit. A dinner was given in honor of the State Society officers present preceding the meeting. December 11—Detroit—Speaker: Henry Field, M. D., Ann Arbor.

West Side Medical Society (Detroit)—November 16—Detroit—Speakers: R. L. McCabe, R. Ph., Jacob S. Wendel, M. D., Henry R. Carstens, M. D., and Clarence E. Umphrey, M. D., Detroit. December 6—

Eloise—Cancer Clinic conducted by S. E. Gould, M. D., Eloise. Speakers: C. A. Doty, M. D., J. M. Grace, M. D., N. K. H'Amada, M. D., C. K. Hasley, M. D., T. N. Horan, M. D., R. M. Johnson, M. D., H. J. Kullman, M. D., W. J. Seymour, M. D., and W. L. Sherman, M. D.

* * *

CONFERENCE ON INDUSTRIAL MEDICINE AND HYGIENE

In view of the expanding interest in Industrial Medicine and Hygiene and the needs and demands for information in this field of medicine and public health, the University of Michigan in coöperation with the Michigan State Medical Society and the Michigan Department of Health announces a Conference on Industrial Medicine and Hygiene to be held in the Amphitheater of the Horace H. Rackham School of Graduate Studies, University of Michigan, *Thursday, Friday and Saturday, January 11, 12 and 13, 1940.*

The program offered on Thursday and Friday, January 11 and 12, has been arranged particularly for the general practitioners of medicine. Members of the Michigan State Medical Society are especially invited to attend these sessions. However, all are invited to remain throughout the Conference.

—John Sundwall, Ph.D., M.D., Director Division of Hygiene and Public Health, University of Michigan.

Program

General Chairman of the Conference: C. D. Selby, M.D., Detroit

THURSDAY, JANUARY 11

Morning Session—9 to 12 M.

Chairman of the Session: Henry Cook, M.D., Flint, Chairman of Industrial Health Committee, Michigan State Medical Society; Past President, M.S.M.S.

1. *Salutation:* James D. Bruce, M.D., Ann Arbor, Vice President of the University.
2. *Health Problems in Industry:* J. J. Bloomfield, Washington, D. C., Division of Industrial Hygiene, U.S.P.H.S.
3. *Industrial Health and the Physician:* Stanley J. Seeger, M.D., Milwaukee, Chairman, Council on Industrial Health, A.M.A.
4. *Coördination of Industrial Hygiene with Other Health Agencies in the Community:* Kenneth E. Markuson, M.D., Detroit, District Director of the Bureau of Industrial Hygiene, Michigan Department of Health.

Luncheon—Michigan Union—12:15 P. M.

Afternoon Session—2 to 5 P. M.

Chairman of the Session: C. D. Selby, M.D.

1. *Studies in Industrial Hygiene:* J. J. Bloomfield.
   A. Preliminary Survey.
   B. Dust as Applied to Pneumoconiosis.
   C. Pneumonia in Industry.
2. *Industrial Dermatoses:* George Van Rhee, M.D., Detroit.

Dinner—Michigan Union—6 P. M.

E. W. Sink, M.D., Ann Arbor, Presiding

Medical Legal Phases of Occupational Diseases
C. O. Sappington, M.D., Dr.P.H., Consulting Industrial Hygienist, Chicago, Illinois

FRIDAY, JANUARY 12

Morning Session—9 to 12 M.

Chairman of the Session: John J. Prendergast, M.D., Detroit

1. *Studies in Industrial Hygiene* (continued): J. J. Bloomfield,
   A. Lead Poisoning.
   B. Chromium Poisoning.
   C. Mercury Poisoning.
2. *Exhaust Ventilation:* William N. Witheridge, Detroit Department of Health.

Luncheon—Michigan Union—12:15 P. M.

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Afternoon Session—2 to 5 P. M.

Chairman of the Session: ROBERT H. DENHAM, M.D., Grand Rapids, President, Michigan Society of Industrial Physicians and Surgeons.

1. *Control of Industrial Hazards:* J. J. Bloomfield.
2. *Integration of Industrial Hygiene with Industrial Medicine:* H. G. Dyktor, BSCE, Lansing, Michigan Department of Health.
3. *Demonstration of Field Instruments Utilized in Industrial Hygiene:* William Fredrick, Ph.D., and Herbert Walworth, M.S.E., Detroit Department of Health.

Dinner—Michigan Union—6 P. M.

HARRY E. MILLER, BSCE, Presiding

Industrial Hygiene Administration and Industrial Legislation
J. J. Bloomfield

Saturday, January 13

Morning Session—9 to 12 M.

Chairman of the Session: KENNETH E. MARKUSON, M.D.

1. *Development and Practice of Industrial Hygiene in State and Local Health Departments:* J. J. Bloomfield.
2. *State Industrial Hygiene Surveys:* Louis Spolyer, M.D., Chief, Bureau of Industrial Hygiene, Indiana State Board of Health.
3. *Function of State in the Control of Occupational Diseases:* K. D. Smith, M.D., Chief, Bureau of Occupational Diseases, Ohio Department of Health.
4. *Value of Records in Industry:* M. H. Kronenberg, M.D., Chief, Division of Industrial Hygiene, Illinois Department of Public Health.

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

ELECTROCARDIOGRAPHIC PATTERNS—THEIR DIAGNOSTIC AND CLINICAL SIGNIFICANCE. By Arlie R. Barnes, M.D., Mayo Clinic, Rochester, Minnesota. Springfield, Ill.: Charles C. Thomas, 1940, $5.00 postpaid.

This is a very easily read and most valuable text for both the beginner and advanced student of electrocardiography. It is probably the only monograph in which the results of so many investigators are correlated in such practical form. The diagrammatic drawings are a tremendous help in enabling the reader to clearly visualize the detailed descriptions.

A MANUAL FOR DIABETIC PATIENTS. By W. D. Sansum, M.D., Chief of Staff of The Sansum Clinic and Director of Metabolic Research of the Santa Barbara Cottage Hospital; Alfred E. Koehler, Ph.D., M.D. Member of Staff of The Sansum Clinic and Member of the Metabolic Research Staff of the Santa Barbara Cottage Hospital, and Ruth Bowden, B.S., Dietitian of The Sansum Clinic, Santa Barbara, California. New York: The MacMillan Co., 1939. Price, $3.25.

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TUMORS OF THE HANDS AND FEET. Edited by George T. Pack, B.S., M.D., F.A.C.S., New York, N. Y., Assistant Clinical Professor of Surgery, Yale University School of Medicine and Cornell University College of Medicine; Attending Surgeon, Memorial Hospital for Cancer and Allied Diseases. Saint Louis: The C. V. Mosby Company, 1939. Price, $3.00.

This excellent monograph gives the viewpoint of the surgeon in diagnosing and treating all new growths of the hands and feet. Replete with numerous pictures and extensive bibliography, it should be in the library of any one who is called upon to deal with this type of lesion.

ENDOCRINE GYNECOLOGY. By E. C. Hamblen, B.S., M.D., F.A.C.S., Associate Professor of Obstetrics and Gynecology, Duke University School of Medicine; Gynecologist in Charge of the Endocrine Division and Sex-Endocrine Clinic, Duke University Hospital, Durham, North Carolina. Foreword by J. B. Collip, M.D., Gilman Cheney, Professor of Biochemistry and Pathological Chemistry McGill University, Montreal. Springfield, Ill., and Baltimore, Md.: Charles C. Thomas. Price, $5.50.

This is a very timely volume especially prepared by a competent teacher to correlate the field of sex physiology for the general practitioner. Profuse in pictures and charts, his book makes this complicated subject quite readable, yet encyclopedic in scope.

CANCER OF THE LARYNX. By Chevalier Jackson. M.D., Sc.D., LL.D., F.A.C.S., Honorary Professor of Broncho-Esophagology and Consultant in Broncho-Esophagologic Research, Temple University Medical School, Philadelphia, and Chevalier L. Jackson, A.B., M.D., M.Sc. (Med.), F.A.C.S, Professor of Broncho-Esophagology, Temple University Medical School, Philadelphia. P. 309, with 189 illustrations on 116 figures, and 5 plates in color, containing 50 illustrations in the text. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, $8.00.

The qualifications of the authors of this book are so well recognized by the entire profession that nothing further need be said concerning their authority in presenting this excellent treatise.

Part I, dealing with procedures, is of particular value to the laryngologist as it is complete in every detail with many comprehensive illustrations. Of interest to every clinician are statements of facts given by the authors concerning early diagnosis. They point out that cancer of the larynx may be cured in 80 per cent of cases if diagnosed early, whereas, it is close to 100 per cent fatal if diagnosis is made late.

Part II deals separately with exceptional cases, rare types, etiology, prophylaxis, general considerations, et cetera, while Part III gives a thorough history of the vast amount of work that has been done, and due credit is given to the many physicians and surgeons who have worked on the problems presented by this dire disease.

MARIHUANA, AMERICA'S NEW DRUG PROBLEM. A Sociologic Question with Its Basic Explanation Dependent on Biologic and Medical Principles. By Robert P. Walton, Professor of Pharmacology, School of Medicine, University of Mississippi. With a Foreword by E. M. K. Geiling, Professor of Pharmacology, University of Chicago and a Chapter by Frank R. Gomila, Commissioner of Public Safety, New Orleans, and M. C. Gomila, Lambou, Assistant City Chemist. Philadelphia: J. B. Lippincott Co. Price, $3.00.

PSYCHOPATHIA SEXUALIS. A MEDICO-FORENSIC STUDY. By Richard Von Krafft-Ebing, M.D., Professor of Psychiatry and Nervous Diseases, University of Vienna. Only authorized English adaptation of the last German edition revised by Krafft-Ebing. With introduction and supplement by Victor Robinson, M.D., Professor of History of Medicine, Temple University School of Medicine. New York: 1270 Sixth Avenue, Radio City, Pioneer Publications, Inc., 1939. Price, $3.00.

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Breast Cancer

Surgical Treatment*

By Benjamin Rice Shore, M.D.
New York City



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■ The curability of cancer of the breast depends upon (1) the complete eradication of the disease locally and (2) the absence of metastases outside the local field at the time the patient first seeks treatment. While the first of these is the responsibility of the physician, the latter is out of his control and is dependent upon the situation and type of tumor, its duration, and the particular biological make-up of the growth and the patient who harbors it. The histologic characteristics of the tumor and its biology, although not completely understood, are probably more important in determining the outcome of any individual case than is the actual duration of a growth. In every case, however, there must be a certain actual time when cancer cells pass beyond the axillary barrier to other parts of the body. For this reason tumors must be seen and diagnosed early and treatment promptly instituted; procrastination and uncertainty have no place in the treatment of cancer. In spite of this well-known fact, marked uncertainty and indecision are commonly seen, not only on the part of the patients seeking treatment, but also on the part of their physicians. I would like, therefore, to outline a fairly simple routine which, according to our experience, can be followed in the diagnosis and treatment of the vast majority of cases of cancer of the breast in the hope that it will lead to earlier and more thorough treatment of this disease.

*From Surgical Division B-St. Luke's Hospital, New York. Read at the annual meeting of the Michigan State Medical Society, Grand Rapids, September 21, 1939.

Diagnosis

The clinical diagnosis of carcinoma of the breast may be relatively simple or extremely difficult, depending upon the stage of the disease and the experience of the examiner. However, the more expert one becomes in any given field the more one sees of early, unusual or otherwise difficult cases and his percentage of correct diagnoses may paradoxically decrease instead of increase. A solitary lump in the breast of a woman over 35, with very slight dimpling of the overlying skin and with or without the presence of palpable axillary lymph nodes, is almost certainly carcinoma. Dimpling is most easily demonstrated by lifting the breast upward with the examining hand so that the breast tissue will drag on the overlying skin. That dimpling is not a pathognomonic sign of carcinoma should be borne in mind. I have seen it diffusely over the breast in a case of chronic suppurative mastitis and in a localized form in a patient with nothing but scar tissue in the breast. Enlarged lymph nodes, unless fixed and hard, mean relatively little, as the ones which can be felt very often do not contain tumor and the small non-palpable ones very often do contain tumor. A patient with an enlarged palpable node in the axilla, even if involved with tumor, has a much better prognosis than has a patient with numerous, small, non-palpable lymph nodes which are

found by histologic study after operation to contain metastases.

Several new methods of diagnosis have been described in the past few years, notably transillumination and x-ray, the latter both with and without the introduction of contrast media; but we believe that these are only adjuvants to our other methods of diagnosis and will never replace them. We have tried transillumination and have not found it of any practical aid in the differential diagnosis of breast tumors but we have had no experience in the use of x-rays for diagnosis.

The late Dr. Frank Mathews[2] believed that the aspiration of cysts of the breast for diagnostic and therapeutic purposes was justified, and in his hands it was a safe and useful procedure. It seems to me, however, and he agreed more or less, that this is a poor thing to teach and something which should not be given wide medical publicity. Dr. Mathews was expert in the physical diagnosis of breast lesions and I doubt very much if he ever did any harm by the aspiration of lesions which he considered to be cystic. He was opposed to needling lesions which he considered solid or neoplastic and being an expert surgeon he was perfectly capable of proceeding with surgery when it was indicated. I personally have seen two patients in whom definite carcinomas were found growing just outside a cyst, the latter being smooth-walled and containing clear fluid. These were not carcinomatous cysts and the diagnosis of carcinoma would have been missed if the aspiration treatment had been used.

We therefore believe that all patients with solitary breast tumors should be operated upon for the purpose of diagnosis. Each of our patients is told that the entire mass or a portion of it should be excised, examined histologically while she is under general anesthesia, and that a radical operation will not be performed unless it is definitely indicated. No compromise whatsoever is ever made with patients who are not willing to accept this advice and follow it.

Diagnostic X-ray Examination

Pre-operative x-ray examination of the chest and spine for metastases should be made in every case and as a general rule radical surgery is not undertaken in those cases showing widespread dissemination of the disease. In certain cases, however, especially those with malodorous ulcerated growths, a simple or radical mastectomy is indicated, even in the presence of distant involvement. Any operator thinking only of his five-year statistics will shun such cases, but the true surgeon, thinking of the good of his patients, will be glad to assume the responsibility for this type of work.

Biopsy

Biopsies in our cases are taken by the surgeon with the patient on the operating table and already draped for a radical procedure. Even in very typical cases of carcinoma histologic study of a frozen section should be made before proceeding with a radical operation if a pathologist trained in this method of diagnosis is available. In a few instances radical mastectomies have been performed for benign lesions under the mistaken histologic diagnosis based on a frozen section. However, such mistakes are infrequent and do not alter our view that histologic study is still the most accurate means of tumor diagnosis.

The technic for taking a surgical biopsy for histologic study is relatively simple and can be accomplished in a very few minutes. With the patient draped for the radical operation, a portion of the tumor or the entire growth is removed through a small incision. This wound is loosely packed with a gauze sponge and closed tightly with a continuous silk suture. The suture line is then sealed with collodion. All instruments used in this procedure and any blood-stained towels or gauze wipes are discarded, the skin surrounding the incision is cleansed with alcohol and the gloves are either changed or washed in bichloride of mercury. This technic gives us adequate tissue for histologic study with a minimum of trauma and without risk to the patient.

Needle or punch biopsies are not used, as we are opposed to them on theoretical and practical grounds. Theoretically we think it is an unsound practice to needle malignant tumors of the breast or metastatic carcinomas in the axillary lymph nodes and wait several days before radical surgery, when other more direct means of obtaining material for histologic diagnosis are available. The introduction of a needle large enough to secure cells for histologic study must produce undesirable trauma and hemorrhage, not only in the growth itself but also along the line

of puncture. From the practical standpoint it must be admitted that the average physician is not technically qualified to obtain the proper material for histologic study and the average pathologist does not have sufficient experience to diagnose such material once it has been obtained. While we are willing to admit that in specially trained and unusually competent hands, both of the surgeon and of the pathologist, punch and needle biopsies have been called satisfactory, we think that the teaching of this method as a sound practice for routine use should be discouraged. Patients are repeatedly seen who have had tumors needled by variously trained physicians and surgeons without the securing of proper material for histologic study and without arriving at a definite diagnosis. Knowing the difficulty one sometimes has in securing adequate tissue at operation from very small growths hidden in a fatty breast, it is hard to see how a needle biopsy from such a breast can be accepted with any confidence. Our contention is that in any case surgery is necessary: in the first instance, in which the biopsy is negative, surgery is necessary to demonstrate that tumor has not been missed by the needling; and in the second instance, in which tumor is found, immediate radical surgery is indicated. It therefore appears that needling may be dangerous and in any case it is an unnecessary and useless procedure.

Irradiation

Pre-operative irradiation is not used because we are not convinced that it is a desirable method of treating breast cancer. Adair,[1] who had had considerable experience in this field, furnishes us with the following list of its practical and proved disadvantages: (1) pulmonary fibrosis; (2) poor wound healing, especially separation of wounds; (3) increased technical difficulty of performing the operation after irradiation; (4) increased incidence of postoperative edema of the arm; and (5) fibrosis of the arm muscles with limitation of use. In order to recommend a method of treatment with these known, undesirable results, there must be some well-known and proved advantages to offset them. This, to my knowledge, cannot be found in the literature.

The chief argument which is advanced for pre-operative irradiation is that the operative field can either be sterilized of tumor cells or that the fibrosis around the tumor cells will be so great that the risk of dissemination during the radical mastectomy will be greatly decreased. Concerning the first argument, there is no evidence to show that even half of the breasts can be devitalized of their cancer cells by pre-operative irradiation. In two hundred cases reported by Adair,[1] complete disappearance of the tumor was obtained in forty-seven, or 23.5 per cent, and in one hundred four cases with axillary node involvement, sterilization of the axilla was accomplished in eight, or less than 8 per cent. We feel that a far quicker and more sure way to sterilize a person of carcinoma of the breast locally—and this is all that is claimed of irradiation—is to remove the breast and axillary contents as soon as the diagnosis of malignancy is made. It must always be borne in mind, however, that no method of treatment will be curative once the disease has spread outside the local field.

That the spread from tumors during radical mastectomy following pre-operative irradiation is diminished or completely eliminated, is purely theoretical. Our objection, therefore, to this argument is also purely theoretical. We do not believe that the traumatic spread of cancer of the breast during a radical mastectomy which is carried out in a careful and gentle manner is a factor in the spread of this disease. We have a much firmer conviction that the trauma of every-day life, including dressing and bathing, which is daily sustained during a course of pre-operative irradiation and the period of waiting which follows, has much more to do with the spread of cancer of the breast than has the manipulation of surgery.

About two years ago I had the opportunity of seeing a patient who was undergoing a series of pre-operative irradiation for what was considered a small and operable cancer of the breast. At the time I saw her she was being hospitalized because of a rather marked erythematous skin reaction and was being demonstrated to medical students as an example of a first degree burn. Upon questioning, this patient volunteered the information that she had been instructed to rub the reddened and inflamed skin over the breast carcinoma nightly with cocoa-butter in order to relieve the discomfort and that once a week she had returned to the clinic to be examined by radiologists and a group of students to see if

the tumor had not decreased in size. Since massage and manipulation are well-known causes of tumor dissemination, it is probable that no amount of pre-operative irradiation could prevent this woman from having widespread metastases before she was even brought to operation.

Technic of Radical Mastectomy

It has often been said that the technic of radical mastectomy for carcinoma has been standardized since the classic descriptions of Halsted and Meyer. While this is true to a certain extent so far as removal of adequate skin with the breast, pectoral muscles and axillary contents is concerned, it is equally true that many of the minor technical details vary greatly, not only in different clinics but by different men in the same clinic.

There are several ways in which this radical procedure may be accomplished in a well-planned and uniform manner and it is not this with which we are here concerned. Adequate skin removal and a clean axillary dissection are what we mean by radical mastectomy and these facts cannot be varied although their modes of accomplishment may differ. What I would especially like to stress are the poor functional results which are often seen following radical mastectomies and to offer several suggestions concerning the avoidance of these undesirable sequelæ. Postoperative edema of the arm and disfiguring and disabling scars which cross the axilla are two of the easily avoided complications which follow surgery. Scars running across the axilla can easily be avoided if the original skin incisions are placed high on the chest wall so as to leave an adequate axillary flap which will heal in place on the denuded chest. The dissection of this thin flap requires time but is amply rewarded by the results obtained.

I am confident that edema of the arm can be prevented almost wholly by elimination of excessive deep scarring in the axilla. This is accomplished in two ways: (1) by sharp knife dissection without the spreading and crushing of tissues and (2) by careful strapping of the axillary skin flap into the axilla so that primary union will occur between the skin and chest wall without the collection of serum. The organization of damaged tissue and large collections of serum produce scarring in the axilla with subsequent obstruction to the lymphatic and venous return from the arm.

How Radical

Although the extent of any surgical procedure must depend not only upon the condition dealt with but also to some extent upon the age and general physical condition of the patient, we have come more and more to believe that simple mastectomy is of very limited value even in the so-called palliative treatment of carcinoma of the breast. It has most frequently been used in old and debilitated patients and also for the purpose of ridding seemingly hopeless cases of large ulcerating tumors. However, in many instances these same patients have returned months or years later with large and sometimes ulcerated local recurrences or painful axillary metastases. This, of course, is poor palliation and since elderly patients stand a radical mastectomy unusually well, age *per se* is rarely an adequate excuse for skimpy surgery. Also large tumors of months' or years' duration, although of advanced and almost hopeless appearance, are often relatively benign (otherwise they would already have metastasized widely and killed the patient before reaching such a size) and in such cases a patient should not be denied a chance of a cure through inadequate surgery. During the past few years we have had six patients with apparently advanced and hopeless breast tumors, who have remained well for over five years following a so-called palliative radical mastectomy. We feel, therefore, that the indications for simple mastectomy should be more generally restricted to the absolutely hopeless cases in which demonstrable widespread metastases may be expected to prove fatal in a relatively short time.

Postoperative Irradiation

In the past we have had no definite rule concerning postoperative irradiation and have irradiated several hundred of our patients. At the present time, however, we are of the opinion that when given it should be reserved for those patients in whom there is histologic evidence of axillary node involvement. Local recurrences in our patients without axillary node involvement have been so few in number that we have come to believe it is unwise to subject these patients to routine prophylactic irradiation of the axillæ for cancer cells which do not exist. Heavy x-ray

dosage in these individuals is not only useless so far as control of the disease is concerned but in some cases is actually harmful. Patients are repeatedly seen who have been made chronic invalids by heavy, so-called prophylactic postoperative irradiation and it is the duty of the surgeon to see that his patients who are most likely already cured of their disease locally are not further handicapped by this type of treatment.

In a few instances postoperative irradiation has caused the disappearance of local recurrences and probably prolonged life but in our series of cases we have no instance in which any patient with proved local recurrence of her tumor has been cured by irradiation. On the contrary there are several instances in which non-ulcerated recurrences have been converted into open, malodorous wounds from the injudicious use of irradiation. In these instances, also, the patient has not been cured of her tumor. The important conclusion to draw from this is that cancer of the breast must be eradicated locally if the mortality from this disease is to be decreased.

I have the impression that routine postoperative irradiation has been responsible for a large amount of poorly conceived and executed surgery in the hope that any tumor remaining after operation can be destroyed by x-ray. Experience with pre-operative irradiation has shown us that metastatic foci in the axilla can only be sterilized of tumor cells in a very small number of cases and there is nothing to suggest that this is not also true of the treatment of foci remaining after radical surgery. This encouragement of inadequate surgery is a real objection to the irradiation therapy of all types and kinds of cancers whose primary form of treatment is surgery, and one which must be met by the surgical profession at large.

One of the largest fields for postoperative irradiation is in the treatment of the pain associated with skeletal metastases. No treatment is more specific or helpful in the relief of symptoms than the irradiation of a spine involved with metastatic breast carcinoma and not only are these patients made more comfortable but their lives are actually prolonged.

Summary

Cancer of the breast is primarily a surgical disease and, beginning with the time the specimen is taken for histologic study, the patient should be in the hands of a surgeon who is competent, because of pathological and technical training, to proceed with radical surgery at the time. The average physician does not have sufficient clinical material to perfect himself in the technic of aspiration or punch biopsies and the average pathologist is not experienced in the diagnosis of this material once it is obtained. Widespread use of these uncertain methods of diagnosis should be discouraged.

Pre-operative irradiation is not recommended as its theoretical advantages are far outweighed by the well-known practical disadvantages. Careful, meticulous radical mastectomy continues to be a satisfactory form of treatment for this disease and will result in a higher percentage of cures with earlier diagnosis and more prompt institution of adequate treatment.

Postoperative irradiation is reserved for those patients with proved axillary node metastases and for local recurrences. Irradiation of skeletal metastases not only adds to bodily comfort but may also actually prolong life.

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Private Practice Essential

S. Adolphus Knopf, M.D., New York City, in a monograph entitled, "Modern Medicine in the United States —Past Achievements and Solution of Present Day Problems," points out many of the false premises under which the advocates of socialized medicine are working. An ardent worker in the field of health and medicine and one of the great specialists of tuberculosis of the day, he attacks with great vigor those who would take from the people their rights to private practice of medicine and its inherent benefits. He considers the various divisions of medicine and public health and demonstrates quite conclusively the superiority of the American Way of taxing medicine in controlling them. Reviewing the Wagner Health Bill, he brings out the fact, among others, that it does not safeguard in any way the continued existence of the private practitioners who have always brought to the people the benefits of scientific research and treatment. Also that it prescribes no method for determining the nature and extent of the needs for preventive and other medical service for which it proposes allotment of funds.

Syphilis

In Industry*

By George Van Rhee, M.D.

Detroit, Michigan

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■ A rising trend of interest in syphilis as a problem in industry was created with the advent of the National Campaign for the Eradication of Syphilis by the United States Public Health Service. The sudden lifting of the taboo which surrounded syphilis and the spread of information through the forum, the press and the radio led to the jitters and to hysteria among both the employer and the employee with the result that the employer, in many cases, formulated a hit and miss policy, while the employee sought employment where such a policy was not in effect.

Because of this some industrial organizations and certain branches of our Federal Government, as, for example, the Civil Service Commission of the United States, inaugurated the policy of requiring a routine blood test not only of all applicants for positions, but also all of those already employed, and refusing employment to those whose serologic tests were positive. The reasons assigned for these regulations are first, the danger of transmission of syphilis especially by the food handlers; second, a syphilitic person using dangerous machinery is a hazard to himself and to others; third, the additional economic risk imposed upon the company by the possibility that the syphilitic may become disabled directly or indirectly because of his syphilis, thus imposing upon the company or the Federal Government the burden of his care.

Attitude of Industry

What then should be the general question of policy of industry in regard to syphilis? Should blood tests be done? What in general should be the attitude toward the employee with a positive Wassermann? The Employers Liability law has forced almost all of industry to require a complete physical examination of all new applicants and frequently examination of all old employees in order to protect themselves from any further liability. Such an examination would not be complete without a blood test. Such an examination would include all executives as well as minor employees. All old employees should be urged to submit to a blood examination. This should be done by persuasion and education rather than by coercion. In intermittent illnesses following an injury, especially those which extend beyond the usual period of recovery, a Wassermann test should be done.

A routine blood test, as such, without a detailed physical examination should not be used as the sole criterion for the refusal to hire, or for the dismissal of any employee. Furthermore, a blood serologic test is not the criterion of infectiousness. During the sero-negative primary stage or during the infectious secondary relapse the test may be negative, though the patient is highly infectious. A blood Wassermann test of itself does not either establish or rule out the diagnosis of cardio-vascular disease or neurosyphilis. In both types the blood test may be negative. The diagnosis of this condition can only be established by a careful study of the physical status of the patient and in neurosyphilis by examination of the spinal fluid. One case will illustrate the futility of using the blood Wassermann test as a yardstick for employment.

R. H., aged twenty, has congenital syphilis for which he was treated for three years, at the end of which time the Wassermann was still positive. The physical examination was entirely negative. He applied for a position as a patrolman in a Police Department, was accepted and started on duty for a probation period of six months. During this period he was required to purchase all of his equipment. In the interval the Police Department passed a rule requiring a blood Wassermann. At the end of the six-months period he was reexamined and found to be physically fit except that he had a positive Wassermann. He was immediately discharged and to this day has not been able to return.

Many other examples of this type could be cited.

We believe that no applicants for positions should be turned away, and those already employed should not be discharged because of a

*Read before the seventy-third annual meeting of the Michigan State Medical Society, Detroit, September 21, 1938.

positive Wassermann. It is economically impossible to discharge or refuse employment to men and women with latent syphilis. We know that about 12 million people in this country are infected with syphilis and probably one-half of that number will continue to have a positive serological test whether or not they have adequate treatment. If they have early syphilis they should be relieved from work, and treated until such a time when they are not dangerous to their fellow workers. The same scheme would apply to latent asymptomatic syphilitics who are competent to perform their jobs. Individuals with late manifestations of syphilis must be judged individually with careful discrimination. If such an employee is physically and mentally capable of assuming the responsibility of a position he should not be rejected because of his syphilis. The presence of cardiovascular and nervous system syphilis usually precludes the ability of the wage earner to perform heavy physical labor. This type should not be placed in a position of responsibility if it involves the safety of others or the manipulation of delicate machinery unless the industrial physician finds that individual qualified.

Determining Disposition of Syphilitic Persons

The question of the danger of transmission of syphilis can best be handled by dividing the workers into various groups. The first group we will call the personal service type. This group would include food handlers, hotel and restaurant help, barbers, beauty operators, pullman porters, schoolteachers, matrons, nurses and all of those whose work brings them into intimate personal relation to other people. The second group includes those who have a routine job such as clerks, laborers, helpers, janitors and operators of individual machines. The third group is of primary importance in industry. This includes the individuals who hold responsible positions such as air-pilots, railroad engineers, train dispatchers, train operators, bus drivers and also the executive with a responsibility for the managing of various enterprises.

The first group presents the greatest possibility of chance infection. The early stage of the disease is the most important when chancres, skin lesions and mucous patches appear. Latent syphilitics are not likely to transmit an accidental infection, as the individual who has had syphilis for five years is not considered infectious. The industrial surgeon who is responsible for this group of workers must keep high his index of suspicion. Every suspicious sore should be dark-fielded and every skin lesion should be carefully checked. When syphilis is discovered and properly treated the period of contagion is short. On the whole it is our belief that the chance of accidental infection is very small. The second and third groups present no unusual problem of chance infection. Close contact with other employees does not occur in those groups.

From the standpoint of public safety the risk that the syphilitic person handling dangerous machinery may endanger the lives of others is limited primarily to the second group and then only to those patients with cardiovascular syphilis, neurosyphilis and general paresis. We have no available evidence in medical literature which shows that industrial accidents are more frequently due to carelessness of syphilitic persons excluding the exceptions mentioned above than are due to carelessness of non-syphilitic persons. Furthermore, public safety is not protected by the employment of non-syphilitic persons unless those persons remain non-syphilitic during the entire period of their hazardous occupation.

Risks from Syphilitic Persons in Industry

Statistics show that heart disease is responsible for more deaths than pneumonia, tuberculosis or cancer. About 10 to 12 per cent of heart disease results from syphilis. Since each death represents a loss of from nineteen to twenty-three years, it is estimated that the loss from cardiovascular syphilis is from 800,000 to 850,000 years of life annually. It is a well-known fact that heavy physical labor and great mental stress and strain is conducive to development of aortic dilitation and aneurysm among syphilitic employees. Cochens and Kemp reported the effect of occupation on incidence and type of syphilitic aortitis on 749 syphilitic males. They found 13.3 per cent with syphilitic aortic disease. Of this group 4 per cent had simple aortitis; 1.0 per cent aortic insufficiency, 5.2 per cent aneurysm and 2.3 per cent aortic insufficiency and aneurysm. Examples of this type could be multiplied many times by investigation of the auto industry, mining industry, construction, transportation and many other industries where heavy physical labor is demanded. Every syphilitic employee with

cardiac disease may thus become either a partial or a total disability and a financial liability to the company which employs his services.

The central nervous system and brain are likewise predominately affected by syphilis. The United States Bureau of Census estimates that 10 per cent of all commitments to insane asylums are the direct result of general paresis and tabes dorsalis. As in cardio-vascular syphilis, involvement of the central nervous system may remain asymptomatic for a long period of time revealing no outward signs or any mental changes. During this period it can often only be diagnosed by a spinal fluid examination. On the other hand the disease may produce symptoms at an early stage such as headaches, tremors of the tongue and lips, as well as in the hands and fingers, and changes in conduct. Early in the disease the memory for recent events becomes defective which is demonstrated by the patient resorting to written memoranda for everything he wishes to remember. They lose their mental alertness, fail to react to normal stimuli. They overlook the danger signal and thus become the cause of an accident. This type of individual lives with us and is a constant source of danger.

In tabes dorsalis we usually observe faulty coordination, ataxia, diminution in vision which frequently leads to falls, fractures and other accidents for which the employer pays claims for other than for syphilis. The employee with a partial or a total blindness is a constant source of danger not only to himself but also to his fellow workers. In our estimation this group presents the most serious problem in syphilis in industry.

Probably the greatest objection raised against the employment of syphilitic persons is that an economic risk is imposed upon the company by the industrial compensation or other forms of social insurance. It is no doubt true that in many instances compensation claims are paid for injuries which better medical advice would have set down to syphilitic infection rather than accident. At the present time we have no data to determine to what degree these cases figure in the annual budget of a large industrial organization.

Complications

Early detection of syphilis, proper treatment followed by a complete and thorough examination of the worker following injury and the proper evaluation of the Wassermann would eliminate many claims for which compensation is now paid. It has been our observation that the industrial surgeon in many cases considers the injury only instead of the general physical condition of the patient. The following cases will illustrate the necessity for careful examinations:

Case 1.—J. W., aged forty-nine, sustained an injury to the right ankle when he stepped between platform and conveyor. He complained of severe pain while walking. The treatment consisted of moist heat, elastic bandage and then an elastic stocking. In May or June, 1935, he consulted an attorney who referred him to a physician. The x-ray revealed an osteitis which on later examination was found to be a Charcot joint. The Wassermann was 4 plus. There was no history of a penile sore. He had gonorrhea in 1906. Not only compensation but treatment was ordered by the Department of Labor.

Case 2.—D. M., aged forty-six, on January 2, 1934, slipped and fell while carrying iron pipe, causing injury to lower back and right hip. The x-ray revealed no fracture or evidence of trauma. He was placed in a plaster cast. His teeth were extracted. This treatment did not relieve the symptoms. In June, 1934, he was sent to Harper Hospital for study. The Wassermann was 4 plus and the radiograph of the chest revealed the aorta tortuous. The diagnosis was cerebro-spinal syphilis. He had gonorrhea in 1916. His wife had had six miscarriages.

Page Edmund quoted by Eller reported thirty-five cases where the diagnosis included hemiplegia, sacro-iliac disease, influenza and a host of other conditions in which the final diagnosis of syphilis was confirmed. All of these subjects lost a total of 13,946 days at a total cost to industry of $50,711, not including the loss to the employee. We emphasize that any illness in an industrial worker or any convalescence prolonged beyond the usual expectancy following an injury or illness should be the occasion for a combination of a complete physical examination, repeated blood tests and x-ray examination of the injured parts and chest and a lumbar puncture.

Frequently claims for compensation are allowed on the basis of the Wassermann. The courts, Department of Labor and many attorneys feel that the diagnosis of syphilis is based entirely on the blood serology instead of a physical examination. This fallacy can be removed by proper education of court officials and attorneys; also by the appointment of a medical board to rule on borderline cases, because in many cases

a compensation award is based on medical findings. The Michigan Department of Labor requested that such a board be appointed in the various large industrial centers. The Wayne County Medical Society appointed such a group including all the specialities. Up to the present time this plan has not been put into effect.

Conclusion

In conclusion may we state that we believe the application of the principles of detection and diagnosis together with thorough and effective treatment and proper follow-up should control syphilis in industry. The Wassermann should not be used as the only criterion for employment. Accidental infection resulting from contact while at work is rare and would probably only occur in the personal service group. The syphilitic individual handling dangerous machinery does not endanger the lives of others any more than his more fortunate brother with the exception of those patients with cardio-vascular syphilis, neurosyphilis and general paresis. Finally we have no definite data that the syphilitic person, with the exception of the cardiovascular and neurosyphilis, imposes a greater economic risk upon the company than does the non-syphilitic individual.

10 Peterboro Street.

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The New York State Journal of Medicine (Jan., 1940) states editorially, "Apart from questions rising directly from the war, however, the profession has many grave problems to face at the outset of 1940. Social and economic conditions are changing; and the traditional pattern of medical practice must be adapted to the new times without sacrifice of essential values. This requires a discriminating, determined attitude toward medicosocial legislation, with ready adoption of desirable reforms and firm resistance to changes threatening the standards and independence of medical practice. If we desire to prevent compulsory insurance under bureaucratic control, we must bend our efforts to make voluntary medical expense indemnity insurance work. If we desire to escape political domination, we must assume an attitude of constructive leadership on all questions pertaining to the public health."

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Otolaryngology

Some Practical Points in Diagnosis and Treatment*

By Henry M. Goodyear, M.D.

Cincinnati, Ohio



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■ In this day of automobile and athletic sports, injuries to the ear are frequent. Never irrigate an ear which is discharging blood or fluid, following an accident.

An acute swelling of the external ear usually means blood or serous fluid has collected under the perichondrium. Unless this blood or serous fluid is removed early, and definite steps are taken to prevent its reaccumulation, softening of the cartilage occurs with a resulting cauliflower deformity (and a possible legal suit for neglect). Early, this fluid may be removed by aspiration or incision.

The most difficult part of the treatment is to apply pressure, which will prevent reaccumulation of fluid. Dental modeling compound applied immediately after aspiration, completely enclosing the external ear, is excellent. It must be divided on the third day. If serum is again present, aspirate, and reapply mold for two to three days more.

Another satisfactory dressing consists of applying layer upon layer of cotton soaked in collodion over the front and back of the ear, molding it to the ear. A hairpin is applied while drying.[1]

Cases of three to six days' standing usually require more radical treatment, if a gross deformity is to be prevented. Make an incision at right angles to the long axis of the ear through the skin and perichondrium. Insert a Gruen-

*Presented at the annual meeting of the Michigan State Medical Society, Grand Rapids, September 21, 1939.

wald punch and bite out a window.[2] Remove all clot and soft cartilage, if present, with a spoon curette. Apply a non-irritating antiseptic, and a pressure mold. I find a copper wire laid on the edge of the ear under the dental mold is helpful in dividing the mold for inspection of the ear several days after application.

Acute Infections of the Ear

Pain in the ear while chewing, accompanied by pain when pressing on the external ear, usually means a furuncle of the external auditory canal, not an otitis media. An application of 50 per cent silver nitrate, followed by a gauze wick packing of 1 per cent yellow oxide of mercury, is very helpful in these cases. Firm packing with gauze and Burrow's solution, moistened with a dropper at intervals, is also excellent. Do not forget that these patients should have sufficient sedatives to sleep. I have found that daily doses of three units of insulin seem to hasten resolution, often with surprising relief.

Many acute middle ear infections subside without rupture or incision of the ear drum and indiscriminate incision is to be discouraged. As long as the short process of the malleus is still visible, incision can usually safely be delayed. Redness and swelling about the malleus calls for heat and warm 5 per cent phenol in glycerine drops. An infant with a temperature, who cries after coughing, usually has a middle ear infection.

Acute middle ears, which come up quickly and violently, and rupture during the first twelve or twenty-four hours after onset, show hemolytic streptococci in 90 per cent of cases. Since 70 per cent of all strains of streptococci in humans are B. hæmolyticus, the results obtained by the use of sulfanilamide are excellent. If properly given, and there is no relief in three to four days, the drug should be stopped. I have seen one case, and two more cases have been called to my attention, in which the white count rose to 40,000, and 75,000, and in my case to 90,000, following sulfanilamide.

Every acute discharging ear is accompanied by some infection of the mastoid cells, and mastoid tenderness usually appears on the third or fourth day. This early tenderness, however, does not indicate need of an immediate mastoidectomy. Few primary mastoid infections require operation before ten days, and usually not before the second or third week.

Chronic Infections of the Ear

Chronic discharging ears are always dangerous. This point can not be too strongly emphasized. Small perforations high in the attic region, even though discharge be infrequent and small in amount, usually require a modified radical operation, in which the drum and ossicles are disturbed as little as possible. If with each head cold there is accompanying occipital and temporal pain on the side of the discharging ear, intracranial complications and death are impending. Do not delay operation.

Acute Infections of the Nose

It must be emphasized that a boil on, or near, the end of the nose, is indeed a very dangerous swelling. If cut into or squeezed in the early red stage a meningitis may result, for the return blood supply is largely through valveless veins to the base of the brain cavity. Compresses of aluminum acetate, or of epsom salts with a pinch of table salt added, are indicated to soften the boil before rupture or opening.

Acute Colds

Acute colds are not best treated by taking large quantities of orange juice, soda, or alkaline drinks, as so frequently advocated and advertised over the radio. The nasal and body secretions are normally slightly acid, thus offering the greatest resistance to bacterial growth. It is not generally realized that bacteria require an alkaline medium for growth. This fact is made use of in every clinical laboratory and bacteria are routinely grown on an alkaline medium. No laboratory grows streptococci on an acid medium. Is it reasonable then that we should deliberately attempt to create an alkaline condition of the secretions of the body, and thus play into the hands of our bacterial enemies? It is when the nasal and body secretions shift from their normal slightly acid reaction to the alkaline side, that bacteria, accompanying acute infection, find their favorite field for growth.

Alkaline treatment has been broadcast beyond its true value. The drinking of a level teaspoonful of ordinary table salt in a glass of cold water at the onset of a cold, even repeated several times the first day, will do much more for most colds than any of the alkaline drinks.

Cathartics, unless positively indicated, have no place in the treatment of an acute cold. They

decrease the body fluids, deplete the patient, and prolong a cold from one to two days.

Two tablespoonfuls of strained honey with the juice of one-half of a lemon in a tall glass of hot water, sipped at bedtime, is an ideal drink in the treatment of colds. Our forefathers rightfully recognized honey as a valuable adjunct in medicine.

Coughs, arising with acute colds, and lasting more than two weeks, indicate a nasal sinus infection until proved otherwise. Unless these sinuses and cough are cured, especially in young children, a beginning bronchiectasis occurs, the golden opportunity has been lost, and a condition far more incurable than tuberculosis has arisen.

Fractures of the Nose

Early or immediate treatment of fractures of the nose is most important. Do not depend upon x-ray in these cases. If there was bleeding with the injury, fracture and a tearing of the underlying membranes must have occurred. Is there a deformity, external or internal? If so, under local or gas anesthesia, push the nose in place and elevate depressed fragments by placing a blunt instrument in the nose. No splints as a rule are necessary. Look carefully for hemorrhage into the septum and drain if present, otherwise suppuration and a saddle nose deformity usually results.

Nasal Hemorrhage

Remember that 90 per cent of all nasal hemorrhages come from the anterior portion of the septum, and do not require post-nasal plugs and long strips of packing. A large piece of cotton, as large as one's thumb, placed well into the bleeding nares, with light pressure against the side of the nose to bear the cotton against the septum, will usually stop the bleeding in five to ten minutes.

After the cotton is removed, apply a 10 per cent solution of cocain, followed by using a very small applicator dipped in a 50 per cent solution of silver nitrate. Hold this applicator firmly against the bleeding point thirty to sixty seconds. This treatment will not fail you in septal hemorrhages. Vaseline following should be advised to relieve dryness.

Antrum Infection

I wish to call your attention to a procedure which I hope you will help to discourage. That is, the treatment of an antrum infection through a fistula, occurring after the extraction of a tooth. The normal route of drainage for an antrum is through the nose, and not the mouth. It would be better to suture the opening immediately to prevent further infection from the mouth, or to let a good blood clot remain as a base for healing. Treat the antrum infection through the nose.

Infections of Mouth and Neck

I wish to mention a few points which you will find very helpful in the care of infections about the mouth and neck. No attempt need be made to give fluids by mouth in cases of acute cellulitis and painful swallowing. A nasal tube inserted, and left in place, for the maintenance of fluids and nourishment is recommended. Remember, in submaxillary infection and Ludwig's angina, there is no distinct trismus. The patient may have difficulty in swallowing, but moves the jaws without pain. It is in the pharyngo-maxillary infections that trismus is most marked and is accompanied by external swelling in the upper part of the neck as well as temperature and difficulty in swallowing. Usually there is a history of extraction or infection of a lower molar, or a peritonsillar or pharyngeal abscess.

Very definite treatment is indicated in these cases to save their lives. First, x-ray is helpful in early localization. Second, there are two very definite, but not too difficult, methods of approach for entering and draining the pharyngo-maxillary fossæ. First, incision through the anterior tonsillar pillar,[3] and insertion of an eight inch hemostat, preferably curved, is an excellent and simple procedure in many cases. Second, the Batson approach, in which an incision is made just back of the angle of the jaw. Find this angle with your finger and enter with hemostat or finger deep to this angle and upward. You will easily enter a free cavity just lateral to the tonsil.

Ludwig's angina is always alarming and definite in picture, with a brawny tender submental swelling, often with the tongue pushed high into the mouth, or even protruding, accompanied by difficult swallowing, and threatened breathing. X-ray treatment helps in localization, and I have

seen cases, even with the tongue much elevated, subside after x-ray treatment. I wish here to condemn the old ear-to-ear incision in the treatment of these cases. It is an incision of horror, and results in much unnecessary scarring. If the infection is chiefly above the mylohyoid muscles, drainage by incision in the floor of the mouth is excellent and sufficient.

The external incision, when desirable, should be made carefully in the midline, not to the right or to the left. From this incision a hemostat can be passed to either side below the mylohyoid muscle, or, by advancing the mid-incision through this muscle, both sides above the mylohyoid and in the floor of the mouth may be reached.

556 Doctors' Building.

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Group Hospitalization

The Michigan Society for Group Hospitalization announces that nine months from the date of issuance of its first contract they have over 70,000 subscribers.

"The rapid expansion of the organization may be attributed to a large extent to the enthusiastic coöperation accorded the plan by the physicians of the state.

"Executives of over 550 leading Michigan organizations have already made this plan available to their employees. The fact that about 55 per cent of the workers in these organizations took advantage of this opportunity to enroll is ample evidence that there is a definite need and desire for this protection among the people of the state

"With service, not only to the subscriber but to the hospitals and doctors as well, as its basic principle, the Society has taken every precaution never to interfere in any way with existing relationships between physicians and hospitals or between physicians and patients.

"Under the provisions of this plan, the subscriber may receive hospital care only on the recommendation of his physician. When, in the attending physician's judgment, hospital care is no longer necessary, only he can order his patient discharged.

"During the few months this plan has been in effect in the state, the many doctors who have recommended hospitalization for subscribers have realized what a blessing this service is to their patients. A patient whose mind is free of anxiety over expense incurred during a stay at the hospital is apt to experience a more rapid recovery than one who is constantly worrying about a mounting hospital bill. Also, with his hospital bill taken care of, the patient finds it much easier to pay his physician.

An Improved Needle

For the Injection of Internal Hemorrhoids

By Constantine L. A. Odén, M.D.
Muskegon, Michigan

Constantine Oden, M.D.

University of Wisconsin, 1918, B.S.; New York University, 1920, M.S.; Bellevue Medical College, 1920, M.D.; Interne Bellevue Hospital, 1920-1922; Assistant to the late Dr. A. J. Ochsner, Augustana Hospital, Chicago, 1922-1923; Attending Surgeon at Hackley and Mercy Hospitals, Muskegon, Michigan; Non-resident Fellow of the Chicago Surgical Society; Associate Fellow of the American Proctologic Society; Fellow American College of Surgeons.

■ The injection treatment of internal hemorrhoids definitely has its limitations, and these should be understood by each practitioner before attempting to perform this very important operation. Unfortunately, because the procedure seems easy it is being used too extensively and in many conditions where it is wholly unsuitable. Faulty technic produces very unsatisfactory results and a variety of complications. It is, therefore, of paramount importance for those who wish to inject internal hemorrhoids properly to acquaint themselves with the anatomy and diseases of the anorectal regions.

Indications and Contraindications

The indications for the injection therapy are clear, the purpose being in most cases to check bleeding. The uncomplicated, bleeding, easily reduced piles of moderate size may be injected. However, when there is considerable protrusion associated with bleeding, the patient should be informed that the bleeding might be arrested, but the protrusion will probably not be completely relieved, and may return.

The contraindications are numerous. Any evidence of a recent or old inflammation of the lower intestinal tract and anorectal regions definitely contraindicates injection therapy. Pathology, such as cryptitis, papillitis, fissures, fistula, ulcerated and fibrosed infected piles, peri- and rectal abscesses, severe colitis, definitely precludes the employment of injection. *Never inject external piles.*

In males it is well to remember that in the presence of advanced prostatic hypertrophy, this obstruction should be relieved before hemorrhoids can be treated. Often they will subside if the prostate is treated or removed.

Technic

It is absolutely necessary to have proper instruments. Each patient should be proctoscoped to rule out higher pathology, therefore the first important instrument is a good proctoscope. Sev-



Fig. 1.

eral different size anoscopes, such as the Hirschman or Brinkerhoff specula, and a good light which will properly illuminate the operative field are necessary. Proper needles and syringes are very important.

I have used numerous needles of various shapes and designs, which led me to design what I consider an improved needle. Through the courtesy of the MacGregor Instrument Company such a needle has been made for me (Fig. 1), and I find it makes for better visibility, greater ease and exactness. I use a 3 c.c. syringe to which this needle is attached. The needle is so curved towards its tip that it will slightly depress the hemorrhoid, allowing its base to be injected under full vision, the bevel of the needle being turned upward instead of down as in other needles of similar design. This allows the mucosa to be more easily entered and the solution injected between the veins entering the hemorrhoid.

The solutions to be injected vary with the operator's choice. I prefer the use of 5 per cent phenol in oil combination; in other cases I use quinine-urea, depending upon the requirements of the case. The injection should be performed slowly. The hemorrhoid should not be blanched, only distended. To do this does not require a large amount of solution. I never inject over 2 or 3 c.c. of the oil solution, more often less, perhaps .5 to 1 c.c. The needle should be left in for several seconds to prevent leakage. There should be no pain. It is better to inject only one hemorrhoid at a sitting, and if a re-injection of the same hemorrhoid becomes necessary, this should be done only when induration has subsided. When injecting the hemorrhoid it is good technic to aspirate to ascertain that one is not in the blood stream. In most cases, six to eight treatments will be sufficient. It is important to keep proper records of hemorrhoids treated, strength, and amount of solution injected.

Summary

In properly selected cases, using good technic, with adequate instruments, the injection of uncomplicated hemorrhoids relieves bleeding and restores mucosa to a nearly normal condition. The introduction of a new hemorrhoid needle simplifies the technic by giving more visibility with easier entrance into the mucosa.

Pyuria

Its Diagnostic Significance*

By B. C. Corbus, M.D.
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Budd C. Corbus, M.D.

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■ Pus in the urinary tract is one of the most common complaints that occur in the general practice of medicine. By means of the modern diagnostic methods with which the specialist in disease of the urinary organs is familiar—cystoscopy, urethroscopy, and x-ray examination of the kidneys and bladder—it should not be so difficult to discover its exact cause or source, provided a systematic method of procedure in hunting for the original source of infection is closely followed.

Infections of the urinary tract are considered as coming from two sources, *i.e.,* (a) from outside of the body, and (b) from inside the body (Fig. 1). The most common infection that occurs from without the body is gonorrhea. It has been estimated[5] that there are in the United States every year over one and one quarter million new cases of this type of venereal disease. Other less common sources of infection coming from outside are often due to instrumentation and

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catheterization following the passage of sounds or withdrawing urine when an individual is unable to pass it spontaneously. This frequently occurs following operations or childbirth. Strong antiseptics may also by their destructive action

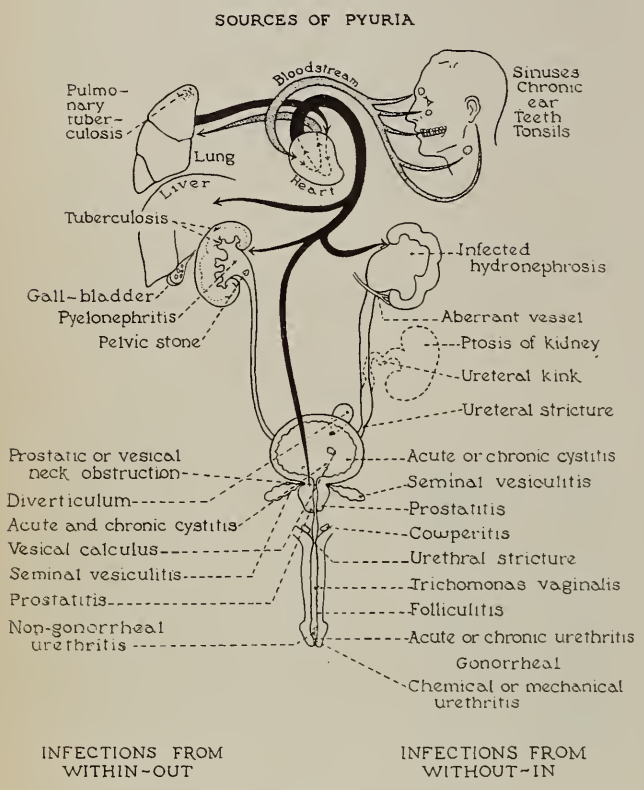


Figure 1.

do the same. Infections occurring from within the body are most frequently caused by abscessed teeth, infected tonsils, sinuses and chronic otitis media. In older individuals, the gallbladder may be the source from which pus is absorbed.

Tuberculosis of the urinary organs is always an extension from some source (most commonly in the lung). The bacilli are carried by the blood stream to the body filters, where they produce secondary abscesses, which in turn cause pus to be present in urine. The same procedure is equally true of other organisms that come from teeth, tonsils or sinuses, but they are often not so destructive in the kidneys and bladder. However, they all produce pus in the urine. Congenital or acquired obstruction to the normal flow of urine is always sooner or later associated with pyuria.

Man's urinary system may be compared to the modern installation of plumbing. As long as there is free and unobstructed drainage, the plumbing works efficiently, but if the drainage becomes obstructed, the outflow is immediately interfered with and infection is given a foothold.

Non-gonorrheal Urethritis as a Symptom of Pyuria

Examination of the literature during the last fifteen years reveals little of importance with regard to the etiology of non-gonorrheal urethritis except those infections that are secondary to stricture of the urethra or infections of the prostate and seminal vesicles. However, during the last few years our attention has been called to the fact that trichomonas vaginalis, so common in the female, is often the cause of a severe urethrocystitis in the male. The diagnosis is made by utilizing the hanging drop method from a specimen prepared from the fresh pus diluted with normal saline solution or from material obtained after centrifuging the urine. The removal of the source of infection is the only guarantee of a cure. Often when pyuria is present with its accompanying urethral discharge in either male or female, the urethra and bladder are treated diligently. We must not forget that cystitis *per se* does not exist and that instillations and irrigations of the bladder only aggravate the condition after seemingly alleviating the symptomatology.

If there has been a history of a previous gonorrheal infection the patient is often examined for stricture and frequently sounds are passed to the limit of tolerance. If, by chance, pus has been expressed from the prostate, it has been massaged diligently and often the seminal vesicle is included in the endeavor to stop the urethral discharge, each urologist indulging in his own particular hobby.

Recently O'Conor,[4] in his experimental work, has shown the following:

> A dog's prostate removed after daily massage for seven consecutive days shows many areas of complete rupture of the alveolar walls together with scattered cystic formations of the alveolar spaces and a thickening of the septa with areas of round cell infiltration denoting glandular destruction and chronic inflammation. With the foregoing in mind, let us put the soft pedal upon prostatic massage in the male as a cure for pyuria of unknown origin. In tracing the source of pyuria it is a good rule, whenever possible, to make

a direct smear from the urethra in either the male or female, including Skene's and Bartholin's glands and the cervical canal in the female. As has been previously stated, the most common infection that occurs from *without the body* is gonorrhea. A diagnosis here depends upon the findings after culture or smears have been made. The following is a rapid Gram stain that we have found valuable in our practice during the last several years.

Six wide-mouthed, four-ounce bottles are numbered from 1 to 6 and labeled according to the following ingredients: Bottle 1 contains alcohol-saturated gentian-violet with distilled water in the proportion of one part stain to three parts water. Bottle 2 contains plain distilled water. Bottle 3 Gram's solution. Bottle 4 absolute methyl alcohol. Bottle 5 plain distilled water. Bottle 6 dilute Ziehl-Nielsen carbolfuchsin (about 1:10), whose speedy and penetrating properties are well known. The elements of the stain differ from the original technic in two essential details, namely, the employment of plain water for the gentian solution in place of anilin-water (this may be used nevertheless), and, most important, the substitution of absolute methyl alcohol for ethyl alcohol, as the destaining agent. The reason for this substitution is that the former acts far more quickly and efficaciously, thereby featuring a desirable time-saving phase.

In performing the Gram stain, the slide is dipped into Bottle 1 for from five to ten seconds with constant stirring, is transferred to Bottle 2 for a few seconds, excess water being taken off, then to Bottle 3 for five seconds with constant agitation to slide, thence to Bottle 4, where it takes but a few seconds to destain, especially if stirred, then transferred to Bottle 5 to wash (if it is not yet destained, the slide is returned to Bottle 4 again) and lastly to Bottle 6 for a couple of seconds. It is washed off in tap water. The staining and counterstaining, it will be seen, have been performed in about one minute.

It will be noticed that after staining with gentian-violet the slide is washed in water. According to good authorities, washing the slide with water before destaining is permissible in the employment of the Gram stain. My reason for using Bottle 2 is that by washing off excess stain the precipitation of the Gram solution is minimized. Finally, the only frequent change necessary is that of the wash-water, since the gentian stain itself does not deteriorate rapidly.

The ingestion of excessive amounts of alcohol is extremely irritating to a previously infected urinary tract. Pyuria with its accompanying non-gonorrheal or non-specific urethritis may make its first appearance following alcoholic excess, often accompanied by coitus. As a result the patient rushes to his doctor because of a guilty conscience and a slight discharge. In view of the large number of exposures to non-gonorrheal organisms to which the average urethra is subjected, infections from *without in* should be more common than from *within out,* but they are not, because the urethra is more vulnerable to this class of infection and, in addition, the passage of the urine along the urethra has a tendency to wash away the infection.

Pyuria caused by chemical or mechanical irritants is transitory and disappears as soon as the cause is removed.

Having proved that the source of the infection in the urinary tract has not come from an outside source, urine culture is indicated. If possible, the specimen of urine should be concentrated and held at least three to four hours. When repeated positive cultures are obtained, regardless of the absence of symptoms, complete investigation of the upper urinary tract should be made. This includes either excretory or retrograde urography or both.

Obtaining the Urine for Culture

For ordinary microscropic and chemical analysis, the female patient is instructed to take a vaginal douche and a bath before voiding in the morning. Often due to the contamination of both rectum and vagina a simple voided specimen is almost valueless. In obtaining a specimen for culture in the female the parts should be first scrubbed with soap and water and then irrigated with bichloride of mercury 1:5000, then dried, and preferably a glass catheter used to withdraw the urine. Always permit about one ounce to escape before collecting the material for culture.

Collecting the Specimen in the Male.—The penis is thoroughly scrubbed with soap and water, then sterilized with bichloride of mercury 1:5000, taking care to wipe the excess from the organ with gauze. The first ounce of urine voided is permitted to escape. This gives a specimen that is practically free from urethral contamination. Again, we must not forget that inflammation of the bladder *per se* does not exist. If we have a cystitis present it comes from either outside the bladder or the upper urinary tract.

Tuberculosis as a Cause of Pyuria

Almost all urinary infections are accompanied by some frequency and urgency. When we find a given case in which no organism or bacteria can be demonstrated by the ordinary methods, diligent search should be made for the tubercle bacillus. We have, according to Herrold,[2]

found the culture method on egg media preferable to guinea pig inoculation.

Ureteral Stricture

Ureteral stricture is either congenital or acquired. Young,[6] in analyzing the cause of 165 cases of hydronephrosis, mentions ureteral stricture as the etiological factor in thirty-seven instances. In our hospital and private practice ureteral stricture with or without demonstrable focal infection is the most common contributory factor in the cause of pyuria.

According to Hunner,[3] ureteral structure is an intrinsic disease of the ureteral wall resulting in a narrowing of the lumen which leads to varying degrees of urinary stasis. The more chronic type of ureteral obstruction is often very difficult to diagnose and it is here that the acumen of both physician and urologist is best tested.

In the female when there is a history of vesical irritability at the menstrual period together with abdominal pain in either side, a history of chronic appendicitis is significant, and also indicates a necessity for a complete urological study. If obstruction exists in a ureter and is constant, one should be able to demonstrate it in a ureterogram, and until such evidence is supplied I do not believe one is justified in concluding that stricture is present in a given ureter. Of course, one's ability to interpret a ureterogram is in direct proportion to his clinical experience.

Focal Infection

I believe that there is still too little attention paid to the rôle that focal infection plays in the production of chronic urinary infection. The mere fact that adequate drainage is established is not enough. Furthermore, it is useless unless the primary source of the trouble has been eradicated.

As all upper urinary tract infections are severe afflictions which ultimately totally incapacitate the patient, careful search should be made for focal infection and its source removed as soon as possible.

I am in accord with the statement of Bumpus and Meisser[1] that devitalized teeth without definite bone changes, and apparently normal tonsils, can produce focal infection.

Occasionally I have found that if all foci of infection are removed a pyuria will clear up by itself; if not, further study should be made.

Conclusion

1. From the evidence herewith presented, it appears that most pyurias of bacterial origin occur as a result of infections carried from *within out* and not from without in.

2. From the information obtained by divided urine cultures and pyelographic studies, it can be demonstrated that focal infection with poor kidney drainage is often the cause of persistent pyuria.

3. Treatment should include removal of focal infections and the establishment of adequate drainage by periodic ureteral dilatation in those cases of demonstrable obstruction, or surgical removal of any underlying pathology.

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Surgical "Catgut"

The Committee of Revision of the Pharmacopœia of the United States of America announces the new standard for surgical guts. Any suture marketed and labelled Surgical Gut, or "Catgut" Suture, or Surgical "Catgut" and intended for surgical use must meet the U.S.P. requirements, as under the Federal Food, Drug and Cosmetic Act of 1938. These standards include sterility, tensile strength, length and diameter, absorption. These standards have been prepared by the Revisory Board with the coöperation of the officials of the Public Health Service, the Food and Drug Administration, the Surgeons General of the Army and Navy, representatives of the American College of Surgeons, the American Hospital Association and the American Medical Association and a number of additional surgical and hospital groups. There has also been valuable coöperation from the manufacturers of surgical products so that the announced standards are believed to be representative of the widest experience and best known methods of production.

The Answer

Lowell S. Selling, M.D., Ph.D., of Detroit, has two articles in the *Journal of Criminal Psychopathology* for January, 1940. One entitled, "A Preliminary Report Concerning Mental Pathology Found in Automobile Drivers," and the other, "Personality Traits Observed in Automobile Drivers." These point out some of the interesting findings in Dr. Selling's campaign for prevention of accidents by eliminating the psychiatrically unsafe driver from the street. They provide most interesting reading and answer many of the questions asked as to why some drivers act and drive so peculiarly.

Endocrinology

Its Application to Human Needs*

By J. R. Goodall, M.D.
Montreal, Canada



James R. Goodall, M.D.

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■ The subject of endocrinology is a modern science, and our knowledge of it is quite incomplete. As a consequence, any deductions drawn today may have to be modified tomorrow owing to some new concept. It is a long subject. No one had any idea, at its conception, that it would reach such proportions of importance in the economy of the body. One wonders today how we ever practiced medicine prior to the new awakening. It would be futile to attempt to cover the whole subject of endocrinology in the time at my disposal, but there are certain phases of the subject that are purely clinical, and have stood the test of practical application. It is my purpose today to discuss two complexes only of this subject. By the term complex, I mean that uniglandular dystrophies are a rarity. The vast majority of gland dystrophy cases are inherited tendencies, and are pluriglandular or gland complexes. We have gone into this subject rather intensively in two hospitals under my supervision, and I am giving now for the first time the fruits of this work.

First of all, let me deal with a few generalities in glandular disease. Sufficient attention has not been given to the distinction between glandular fatigue and glandular exhaustion. Yet this very distinction is of primary importance. Fatigue arises out of the effect of excesses—long continued or short intensive excesses—upon a glandular system possessing a subnormal reserve, and all its behooves us to do under these circumstances is to change the "circumstances" of environment, or what some prefer to call "activity"—using the term to cover all incoming impressions and outgoing forces. Anyone may at some time be the subject of glandular fatigue, and it behooves us to recognize this as early as possible, in its incipient stage. Exhaustion, on the other hand, implies an hereditary low reserve, and that at any time in life; even in embryonic life this reserve may become a bankruptcy. Here, change of circumstance at the first signs of the bankruptcy may delay the symptomatic display but it will never cure it, for the source is irremediable and fixed.

Another generality of gland activity lies in this, that each gland has a history in evolution and each has a part to play in evolution. As a consequence of this we recognize that glands that had to do with the early evolution of man may run their full gamut of activity in embryonic life and disappear before birth; others serve their purpose and play their part in the body economy during childhood and become inactive; still others enter our life actively at puberty and cease at maturity, and so does the evolutionary build-up go on until the postmaturity stage, when a general decline of glands sets in, and with this decline tissues lose their resilience, and though receptivity may continue and judgments weighted with wisdom may flow from accumulated experience, the responses to impressions are slowing down and life is passing into the sedentary stage.

As previously stated, I cannot cover the whole subject, but will deal with two interesting complexes that have come out of our clinical studies, studies that have given me and my staff the most brilliant recoveries in our whole life's medical experience.

The first is the thyro-gastro-hematic complex, and the second the pituitary-thyro-ovarian-uterine complex.

Thyro-gastro-hematic Complex

I may state that since the inception of our new plan in hospital surgical practice, almost every case that is not an emergency is subjected to a blood picture or hemogram test, to find the cell content, cell characters, color index and white cell shift to right or left, if at all. A shift to the right is frequenty eloquent of an endocrine disturbance. The blood sugar a.c. and p.c. are

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taken. The basal metabolism rate is estimated, and if necessary, repeated, and the gastric acidity, both total acid and free hydrochloric acid content are estimated, with the stomach at starvation and hourly after food.

Clinical Findings

What have been the clinical findings? Generally, where one of these tests prove abnormal, they are all similarly involved. A low thyroid is commonly associated with complete achlorhydria, or by a degree of hypochlorhydria, and the absence of this gastric factor prevents the proper digestion of the proteins and causes the absence of that hepatic factor which is stored up in the liver and is liberated when needed and in sufficient quantities to stimulate the hemopoietic structures of the body into activity, to maintain a normal hemopoiesis. The absence of this factor invariably leads to an anemia, most frequently of the hypochromic type in women. And all my remarks have reference only to women. Of men's corresponding conditions I have small knowledge. Associated with these conditions one frequently finds various degrees of glycemia, sometimes present temporarily with recurrences, or grave permanent types even to the degree of gangrene. We frequently find, associated with these, periodic albuminuria. Now, what are the conclusions that one can draw from these findings, and what clinical results can one expect by corrective treatment? Let us try to reproduce our line of reasoning. We have found a hypothyroidism, archlorhydria, hypochromic anemia, and degrees of glycemia, albuminuria, and abnormal blood pressures. We have found also that these conditions are *commonly* associated in the same individual. Which is cause and which effect in this series? For they cannot be .all causes, and when commonly associated they must bear a relationship. What is this relationship? First of all, accept the above facts. The symptoms will be dealt with later. Let us try to unravel this coincidence. We have proved time and time again that the absence of hydrochloric acid is the cause of the glycemia, and that this condition of the blood and its hepatic antecedent is dependent upon the achlorhydria. In two of our cases foot gangrene disappeared as if by magic without other treatment than the administration of HCl, and glycemia has disappeared in grave cases completely under this treatment, and this treatment only. It will be found that associating the hydrochloric acid with iron and thyroid hastens recovery very materially. Ferri et ammonium citrate in 30 grain doses in sherry, or in a glass of milk, has proven the most satisfactory form of administration. Gastric and intestinal flatulency disappear, and the hypochronic anemia promptly is relieved. A high protein diet is recommended.

Allergic Manifestations

Probably the most astonishing results that have flowed from these abnormal findings is the cure of allergic manifestations in patients who have been victims of the various manifestations of this malady for years. If you find this combination of endocrine dystrophies in an allergic patient you can assure them with almost 100 per cent assurance that their allergy will disappear when all other forms of treatment have failed. On the other hand, allergies without these dyscrasias cannot be given any assurance upon this score. It is remarkable how allergic colitis disappears and the most obstinate constipations, amounting in some cases to obstipation and associated with megalocolon, respond magically to this treatment and the colonic distension disappears promptly, as seen in barium-enema-x-ray visualization. Many forms of dysmenorrhea and allergy of the pelvis respond promptly to the treatment. When we find healing retarded in postsurgical cases, the finding of this syndrome of endocrine dystrophy will bring about prompt recovery with appropriate treatment. In one of the hospitals under my supervision, we are operating almost daily and in the past three years we have not had one death by any member of the staff until a few weeks ago. This was a death on the table due to cardiac block or anesthesia. Our astounding results we attribute to our pre-operative care and examination, and to the correction of corrigible defects before operation. We feel that the time to find out patients' defects and weakness is before surgical intervention. We find that any glycemia above 135 deserves treatment before operation, and intravenous glucose injections in these cases should be accompanied by small doses of insulin. Personally, I think a glycemic case treated by insulin before operation is a better surgical risk than a normal case, and per contra an elevated (ever so slightly) blood sugar is one

of the worst surgical hazards, and is often the unrecognized cause of infection and retarded healing. But it is in obstetrics that this endocrine complex is so frequently met, and gives such brilliant results.

Association with Pregnancy

In a work published by myself and Gottlieb upon the association of hypochromic anemia and pregnancy, it was found that a very large percentage of cases, especially in multiparæ with numerous pregnancies, suffered from grave degrees of hypochromic anemia, and that this condition ordinarily passed off rapidly in the first weeks of the puerperium. As was expected, the anemia was always associated with complete or a degree of achlorhydria, and the acid usually returned also in the first weeks after delivery, except in the graver cases. I have gone further since then and have also found that in most of these cases there is an associated hypothyroidism. So here again we meet with this pluriglandular association. This association is not fortuitous but recurs so frequently in combination that they are interdependent. We claimed that the hypochromic anemia was due to the demand of the fetus for iron to elaborate its own blood. Whether that is true or not, we may use the same argument in the case of the maternal athyrea. In a noteworthy case admitted to St. Mary's Hospital, the patient, a young woman six months pregnant, was diagnosed as cardiac by one doctor, as renal by another, owing to her generalized edema and dyspnea. On entering the hospital I saw her and pronounced her a grave anemia of pregnancy. Hemoglobin 20 per cent, R.B.C. 1,700,000, B.M.R. —18, a high blood sugar, 140 p.c., and achlorhydria. At the end of the first week of thyroid, hydrochloric acid, iron, and a high protein mixed diet, her hemoglobin was 28 per cent and R.B.C. 1,800,000; at the end of the second week, 48 per cent and 2,700,000; and at the end of the third week, 58 per cent and 3,200,000. The change was phenomenal, not only as regards the rapid disappearance of the edema and anemia, but more so in the improvement in the patient's mental state and in her outlook on life.

Quite recently, I undertook the study of heartburn in the last months of pregnancy. My private patients coöperated wholeheartedly in my request for investigation. Twenty cases in all were sent to the hospital, where a B.M.R., gastric acidity, and a.c. and p.c. sugar tests were done. The results confirmed my suspicions. Eigheen out of the twenty cases of heartburn had a low basal rate and achlorhydria, or marked hypochlorhydria. The other two had hyperacidity. In all of these cases of achlorhydria the total acidity of the stomach was well developed, ranging from 20 to 40 per cent, but it was composed entirely of the acids of fermentation. Treatment by HCl relieved the distress and the distension with promptness. In the cases of hyperacidity the HCl aggravated the symptoms. Here is the clinical lesson. In 90 per cent of cases, heartburn is due to lack of HCl and the consequent producing of acids of fermentation. Soda bicarbonate, which is the common domestic remedy, gives temporary relief only, by neutralizing these acids, but it also creates a medium favorable for further development of fermentation, and it is only a short time before the acids are again in the ascendant. A good clinical test is to try the HCl, 5 to 10 drops in a glassful of water after food, and if the condition is one of achlorhydria the distress will disappear promptly. If aggravated, then revert to the alkalies.

I have been under the impression for a long time that the presence of HCl is necessary, not only for the complete digestion of proteins, but also for the normal operation of vitamins, and that no matter how much we may increase the vitamins in the diet, their action is restricted by the gastric defect. That is for the future. But I am convinced, however, that the high incidence of pyelitis and cholecystitis in pregnancy is due, not to changes in intra-abdominal pressure, but to the lack of the sterilizing effect of HCl, in permitting undigested proteins to pass on into the small bowel, thereby favoring the abnormal growth of bacterial flora, and permitting absorption of these and causing them to set up cholecystitis and pyelitis in the process of elimination, for be it remembered that in both these channels there is a relative stasis owing to pregnancy, and where stasis exists, conditions favorable to infection also are present.

Speculation

Let us philosophize for a moment and step into the realm of speculation. We do know that pregnancy causes more change in the glandular system than in all the other organs, the uterus be-

ing expected. Physiologists tell us that fetal cell activity is twenty-five times more rapid than that of an adult. From this we may form some vague idea of the amount of thyroid that the fetus consumes—a consumption that must be supplied wholly by the mother until the fetal thyroid begins to function. Many of the cases of hyperthyroidism are improved during pregnancy, owing to the fetus using up the excess of the maternal elaboration. Now, I ask you to visualize the effect of this combination of hypothyrea, achlorhydria and hypochromic anemia upon the growing fetus. Not to speculate too widely, let us try to imagine the effect or effects of maternal hypothyroid upon the fetus. The fetal demand will further exhaust the maternal production, and the effect, I assume, would be a premature activity of the fetal thyroid, premature hypertrophy and, in all likelihood, an early exhaustion, or, at least, an instability. Thyroid dystrophies have a peculiar tendency to become hereditary, and are we not to blame in not supplying the deficiency in the mother in the hope of averting the exhaustion or the low reserve of the offspring's glandular system? Are we not condemning that child to a tempo of life below the normal and thereby handicapping it in the race of life? I feel very strongly that prospective mothers who come to us to know whether they can bear children do not receive an adequate answer. Most of our examination has been directed towards the question whether she can put a child into the world—in other words, what is the conformation of the pelvis? Can she stand the strain? The much more important question is, can she produce an endocrinologically normal child? No greater boon can be given a child by its parents than a large reserve of glandular power. That means muscle reserve, brain reserve, stamina and equanimity, from which emotional control, one of the greatest gifts, naturally flows. I am convinced that there is no such thing as neurasthenia. Neurasthenia is an expression of exhaustion of reserve and a draft upon capital. The field of neurasthenia is gradually being restricted as our knowledge of endocrines is increased. It will shortly be recognized as but a cloak to cover hereditary and acquired dyscrasias.

These thyro-gastro-anemias deserve a better recognition, not only in the interests of the mother, but especially of her offspring.

The Pituitary-thyro-oöphoro-uterine Complex

If the thyro-gastric complex is an enigma in its interpretation and application, this last complex is one that is still a snarled skein. As yet, we are far from a clear understanding of the intricacies of the relationship of the anterior pituitary and the ovaries, and still farther from a working rule. We do know that the anterior pituitary is the master gland of this complex; that it has the power to urge or restrain ovarian function as a charioteer in the guidance of his steeds. When the charioteer is a master of his technic, possessing, as all masters must, a large reserve for emergencies, then his schooling of his steeds is so perfect that further interference is minimal, and only disturbs trained coöperation. So it is with the pituitary. But conditions are not always so unobtrusive. The ovaries, the steeds, may not have that reserve so essential for emergencies. The charioteer may be using all his power at most of the time, leaving nothing in reserve for emergencies. So it is with this complex. Prolan A and B are the active agents in the pituitary's relations with the ovary. Prolan A is the activator of the Graafian follicle. B is the motivator of the corpus luteum. In the vast majority of instances, fortunately, the motivation is normal in its intensity. But research has shown that where defects arise in this relationship it is nearly always due to a lack, rather than to an excess, of prolan influence. Let us now consider the ovary. In this organ, I need hardly mention that estrin is the extrinsic power of the follicle. Extrinsic in the sense that it is through estrin that the Graafian follicle exercises its influence at a distance; and, similarly, that it is progesterone which plays the same rôle as regards the corpus. Now, both these endocrines must be in a certain quantum in the body to produce results, and these results are the uterine changes of the menstrual cycle, sufficient unto normal nidation and normal procreation. One of the difficult problems of this complex is to establish which is the primary gland at fault, the pituitary or the ovary. To simplify this matter it has been proved that most of the pituitary defects in this relationship are those of insufficiency of the gland. The symptoms elicited by this defection are well known. But just here enters a weighty distinction. Insufficiency of the pituitary motivation may manifest itself only at the developmental

stage of puberty, when the real test of pituitary efficiency in this respect is called into play. Or pituitary insufficiency may manifest itself after full pelvic development has been effected. The results are quite different. In the one, which is usually hereditary and is in the class of exhaustion, lack of development of the sex organs, retarded puberty, retarded menses, oligomenses and sterility are the rule. Other associated pituitary deficiencies, such as changes in secondary sex characteristics, hirsutism, abnormal distribution of fats, et cetera, may develop. In these cases of primary pituitary defect, treatment with pituitary extract is difficult and must be continuous. I have taught many of these cases to use the syringe with the same meticulous care as one instructs a diabetic in the use of insulin. The results have been most astounding in these cases, causing recession of the abnormal growth of hair and the return of many of the characteristics of feminism, for which the patients are extremely grateful. But one soon reaches a stage when improvement no longer follows and, upon stopping the treatment, relapse is the rule. Of course, there are minor degrees of deficiency where improvement is quasi-permanent, and where treatment, like "setting-up exercises," has caused at least a temporary self-sufficiency of the pituitary.

The major cases of pituitary deficiency are easy of recognition; not so the larval states. Most painstaking history elicitation and a psychological penetration are prerequisites for the recognition of these cases.

Endocrine Balance

The normal balance in the estrin and progestin elaboration and their synchronism are problems of first magnitude and often insurmountable difficulties are met. Let me, with all the power of my personality, condemn the promiscuous use of these potent and expensive endocrines. More especially as at present synthetic preparations with ten times the potency of the human products are at the disposal of the profession. It will not be until an easy and effective test has been elaborated to determine the quantity of these ingredients in the tissues, blood and urine that they will be used intelligently and scientifically. Our present means of administration are faulty and often harmful. The cases that presently lend themselves to intelligent handling are those in whom a history of previous regular menstruation can be elicited and from this, through the period of amenorrhea or metrorrhagia, a calculation can be deduced to know that estrin is being used when estrin is being elaborated in the body and progestin when the corpus is developing and active. Otherwise treatment may be absolutely the opposite of what one may desire to accomplish, and may have the effect of sinking her organs deeper in the fog of their endocrine environment. Of course, the cases where such a fortunate calculation can be made are relatively rare. In the vast majority of cases, intelligent exhibition of estrin and progestin can be hoped for only after laboratory estimates of the urine content can establish the curve of secretion. Thus, and thus only, can we hope for consistent results. When this is possible, the results in cases of temporary aberration of ovarian function are brilliant. But here again we must emphasize the difference in the outlook in cases of exhaustion and of fatigue—the temporary improvement, but ultimate futility of treatment in exhaustion, and the effective results, and often permanency in cases of fatigue. The work of Browne and others has shown how deficiency in prolan causes a marked fall in progestin, and this in turn may be the intimate cause of quantitative diminution in menstrual flow and sterility, and, what is more important, may be the cause of threatened and inevitable abortion. The administration of prolan in habitual abortion of this type, by computation of pregnandiol in the urine, has proved its scientific correctness and its practical worth. A sudden drop in prolan during pregnancy is tantamount to a threatened abortion. Unfortunately, one cannot tell when the treatment will prove futile or not, for one cannot tell how much damage to the pregnancy may have resulted from the initial fall in prolan secretion. The relationship between ovary and thyroid is better understood than some of the others. We do know that in cases of hyperthyroidism, diminished menstrual flow or complete amenorrhea is the rule, and, per contra, hypothyroidism is commonly followed by menorrhagia and metrorrhagia, and the correction of either of these two thyroid derangements promptly brings about a return to normal in the pelvic cycle. The rôle of athyrea or diminished thyroid output in sterility is also well known, and the

practical application of thyroid therapy under these circumstances constitutes one of the brilliant pages in endocrine research. How the dyscrasia operates in bringing about sterility and how the therapy corrects it, are questions to which, as yet, an adequate answer cannot be found.

In the relationship of thyroid and ovary and pituitary, we know that the pituitary contains a thyrotropic element, and a gonadotropic element, and that the symptomatology in any pelvic disturbance may be primarily ovarian or may be primarily thyroid, with secondary ovarian symptoms, or may be primarily pituitary with secondary thyroid and tertiary ovarian manifestations; or again, it may be primarily pituitary with coincidental thyroid and ovarian dystrophies. So you readily see how complex is this subject. In a goodly percentage of cases one can see the sequence of events in the history and in the bodily structure of the patients. But these are the cases of major defects, the least amenable to treatment, and we must await the day until science and experimentation have placed at our disposal means of easy diagnosis and differentiation, to recognize these departures at their inception. In this way, and in this way only, can we hope to retard the effects of exhaustion, and to restore normalcy in cases of temporary overwork. But let us not lose sight of the fact that endocrinology, in the rapidity of its scientific development, in the mysticism of its maze of entanglement, and in its prospective potentialities, has blinded us to all other non-specific forms of treatment. We have almost forgotten that sunshine, both in the soul and in the body, a change in physical environment, a restoration of moral values, a dietetic balance, and a general heightening of all the values which collectively we recognize as health, may be much more effective means for the restoration of normalcy than the administration of fleeting endocrines without the necessary knowledge that we are using them intelligently. Even if one can use these intelligently in any given case, there is all the greater reason why such an intelligent practitioner should call to his aid the other adjuvants that are at his disposal.

Philosophy of Endocrinology

May I trespass upon your time to touch upon a subject that is dear to my heart? I refer to the philosophy of endocrinology. Just a few short abstracts from my book upon philosophy that is approaching completion. I wish to sketch the influence of endocrinology upon character. Human character is made up of individuality and personality. My individuality is what I really am. My personality is what other people think I am. My ego is what I think I am. Individuality is the product and discipline of experience, using experience in its broadest sense, meaning extrinsic and intrinsic in origin. Individuality is receptive, is the product of reception and perception. Personality is expressive, is the reaction which we create upon those within the orb of our influence. Personality is often misquoted as the spirit of a person.

Our double nervous system can be reduced to but a short double statement. Our cerebrospinal system gives us our orientation in the universe; the autonomic system gives each organ its orientation in its universe economy, which is the body economy.

The receptivity of the body to any experience or impression and its perception and its reaction depend upon the state of the individual at the moment of reception, and the state of the individual at any one moment is the result of the accumulated experiences of all the previous moments, back to the beginning of evolution. Chief among the factors which determine the acuteness or dullness of receptivity, and equally the powers of perception and the type of reaction which these predetermine, are the endocrines. The endoctrines predetermine the personal character of emotions and, in turn, are highly influenced by the emotions. So that to teach a child emotional control gives it a double advantage. Heredity gives us our texture, which predetermines the capacity for absorption and expression, and behind texture again are the endocrines. May I just interpose here the vast difference upon the individual between a normal thyroid activity—the excessive reaction of the hyperthyroid and the dull reception and perception and reaction of the individual afflicted with hypothyroidism? So that, in the last analysis, individuality and personality is intimately bound up with endocrinology in preparing the soil and thereby both the impression and expression, which mean character.

Relation to Mental Reactions

The law of causality is operative equally in the mental as in the physical. And as such, in every animal reaction the constant is the cause, the variable is the individual, and the resultant, therefore, must be variable. This sounds like the advocacy of predeterminism as against free-will. Actually that is not so. Free-will and predeterminism are merely terms that have never had an exact definition. May I take a few minutes to make clear the disputed subject. We must begin by defining our terms. If we mean by free-will the capacity of the human mind to change the course of conduct without cause or agency, but merely as a whim, then certainly humanity has not the *curse* of free-will. But if we mean by free-will the capacity to change one's mind under the impulse of a causative agent, recognized or unrecognized, then in this sense do we truly possess the *boon* of free-will. But changing one's mind under an impulse depends upon the individual at that moment. But individuality changes at every moment, and this very individual of the moment is the product of all his ancestors and of all his impressions, both conscious and unconscious, up to and into the moment of reception and predetermines the effect of the reception, that is, perception and expression. Then this is predeterminism. True. But no one but the Omniscient could determine what would be one's reaction at that moment. If we mean by predeterminism that our actions are writ in the book of fate, naturally we would answer that this is nonsense, but if we mean by predeterminism that each change of mind is predetermined by what has gone before, then freely do I believe that actions are predetermined. Who can tell what my reaction will be at any given moment, or that it will be the same at different moments? Naturally, no one, except one who knows all the antecedents. Free-will presupposes in the minds of most people change without cause. But the law of causality is universal and operates equally in the spiritual and physical world. Science is based upon the invariability and universality of that law. So in the last analysis, the ego changes in response to external physical influences or to internal metabolic changes. Here is where the endocrines enter to exercise their influence in changes in individuality and personality. The extent of emotional responses to external stimuli depends largely upon the tempo of life in the individual at the moment of reception, and conversely the reception of stimuli and perception of their import depend upon the emotional equilibrium or imbalance at the moment of reception. So that the determination of the response in the last degree depends upon metabolism, and metabolism is one form of expression of endocrine control. In one sense we have free-will; in another, our responses are predetermined. Theoretically, it is a matter of definition; practically, it is a matter of extrinsic and intrinsic causes, operating upon a variable. That variable, the individual, is variable chiefly owing to his changing biochemistry, and biochemistry is regulated by the endocrines.

To conclude, may I add that diseases do not arise out of one causal agent, but from a series of successive causes in which, if we work back from symptoms, we find effects become causes until we go back to basic vital causes. Some schools teach merely the recognition and treatment of symptoms. Others inquire into immediate causes and endeavor to treat them; others again probe more deeply into remoter causative factors. There is a danger seldom recognized, in this deeper analysis. One is apt to get the idea that the remotest cause is the potent one, and that this must be remedied to effect an improvemen in the patient's condition; and as most of these deeper causes are irremediable, one is apt to flounder in inactive mysticism, whereas, another, less profound, will succeed to his advantage.

Nature usually asks of us that we but change the environment and she will do the rest. Sunshine on the body and sunshine in the soul will often effect the seemingly impossible in such cases. Let us remember that supplemental endocrine treatment is merely supplemental, and at most palliative, and that environmental changes may often produce better and more lasting results. Dr. Samuel Johnson, one of the world's greatest thinkers, once wrote, "It matters little how a man dies, but it matters much how he lives." That is, how his character is formed. In a work on tumors written seven years ago for a large system, I wrote the following sentence: "The incipient stages of all diseases that lead on to corporeal death (except traumatic death)

find their incipient causative agents in the early stages of glandular dyscrasies." Experience seems to confirm that dictum.

By a slow deterioration of our endocrines, metabolic control is lost, and consciousness is gradually dulled by the accumulated products of the body's own elaboration, and the Fates idly cut the string that binds our spirit to this earth, and we glide down the last declivity, happily indifferent to both our fate and our destination.

Schizophrenia

Neurological Signs*

By Wilbur A. Muehlig, M.D.

Ann Arbor, Michigan

WILBUR A. MUEHLIG, M.D.

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■ A GROUP of 500 cases of schizophrenia is being studied at the Neuropsychiatric Institute of the University of Michigan, Ann Arbor. This paper consists of a report on a small portion of this work. Sixty-five of the 500 cases were chosen because of the presence of some neurological sign or signs in each of them, and an attempt was made to correlate and interpret these neurological findings. This group does not include all of the cases out of the 500 which showed neurological signs, and therefore the statistical incidence of such signs in schizophrenia is not shown.

Review of Literature

In the literature of the past ten years there have been a number of contributions on neurological signs in schizophrenia, although they have been essentially non-significant except in a negative way. The characteristic neurological findings in catatonic schizophrenia are well known, i.e., muscular rigidity, mask-like facies, catalepsy, stiff awkward gait, non-withdrawal from painful stimuli, and so forth. The association with negativism, stereotypy, bizarre movements, excitement and other mental symptoms makes the neurological significance of this picture questionable.[5] In addition to these findings in schizophrenia, various coincidental neurological conditions have been observed, such as facial paralysis, Friedreich's ataxia, progressive muscular dystrophy, encephalitis lethargica, epilepsy, brain tumors, amyotrophic lateral sclerosis and Huntington's chorea. No significant correlation between these diseases and schizophrenia has been discovered, however. A great variety of more or less isolated neurological signs have also been observed in cases of schizophrenia. The most common of these are pupillary disorders. These were studied by Schilder and Parker[8] and were found to be most frequent in catatonic schizophrenia and more frequent in negro schizophrenics than in whites. They concluded that a constitutional factor was present, plus psychic factors, and possibly also an organic factor, such as a toxic influence or actual lesion. Runeberg[7] found pupillary abnormalities to be present in 73 per cent of a series of 100 cases of schizophrenia.

In a study made by J. M. Dorsey and L. E. Travis[4] the reflex conduction rate in five cases of stuporous catatonic schizophrenia was found to be greatly increased over that of the normal subject. This was considered to be due to a reduction in the activity of the higher motor centers.

Von Angyal[9] reported a case in which there was evidence of parietal lobe pathology, i.e., a so-called interparietal syndrome. From the description, however, the case did not seem to be a typical schizophrenia. The syndrome was characterized by disturbances of the body schema, metamorphopsia, derangement of visual elements in space, abnormalities of posture-holding and induced spontaneous movements. He states in his discussion that a few similar cases have been reported.

In addition to the above, other isolated instances of neurological signs occurring in schizophrenia have been reported, such as attacks of vertigo, cerebellar signs, paralyses, speech disturbances, extra-pyramidal signs and catatonic contractures. Autonomic nervous system disorders are, of course, rather common, as shown by dermographia, and cyanosis and edema of the extremities. The obvious circulatory changes

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have been frequently observed and written about. Some of the other disturbances require special technic and study to demonstrate.

There are also some studies reported which have yielded negative results.[1,2,3,6] W. Bromberg[3] studied the perception of tactile after-effects in schizophrenics and normals and concluded that there are no changes in the perceptive field in schizophrenia.

Five Hundred Cases

The following is part of the statistical study being made on 500 cases of schizophrenia at the University of Michigan. In this paper the study has not been made on all 500 of these cases but is confined to sixty-five cases, all showing neurological signs and chosen because of this. Vasomotor disturbances other than dermographia were not included. The study was made from routine neurological examinations done usually at the time of admission to the State Psychopathic Hospital at Ann Arbor, Michigan (now the Neuropsychiatric Institute). No special studies are included, such as temperature control, posture tests, induced spontaneous movements, and so forth.

Relatively common findings in the chosen group were increased tendon reflexes, dermographia, nystagmus, irregular pupils, sluggish pupils, unequal pupils, tremor of the fingers, poor coördination, and tremors of the tongue. Other less common findings were generalized sensory disturbances, local areas of anesthesia, local absence of tendon reflexes, protrusion of the tongue to one side, dysarthria, facial asymmetry, twitching of palpebral muscles, absent pharyngeal reflexes, tremors of the face and of local muscle groups, and absent corneal reflexes. The following signs each occurred in one case of the sixty-five: astereognosis, positive Romberg, tremors of the lower extremities, unilateral positive Oppenheim, convergence weakness, and bilateral deafness.

No finding was present in one type of schizophrenia more than the others to a significant degree for the number of cases studied.

Irregular pupils were found in sixteen out of the sixty-five cases studied, sluggish pupils in twelve of the sixty-five, and unequal pupils in seven of the sixty-five. These findings tend to confirm the literature. It is likely that this is part of the general disturbance of the sympathetic nervous system known to be present in schizophrenia.

Nystagmus occurred in seven of the sixty-five. It is of questionable significance, since it can be caused by various sedatives commonly used in psychiatric patients, and, of course, is occasionally found in individuals otherwise apparently normal.

Dermographia occurred to a degree considered to be abnormal in twenty-two cases of the sixty-five. This is in keeping with the vasomotor changes commonly reported in the literature. It was distributed among the types of schizophrenia approximately equally.

Attention should be called to the fact that the above figures do not indicate the incidence of the various findings in schizophrenia as a whole because of the selection of cases which was made.

In no case was there a significant grouping of neurological signs which would allow any conclusions to be drawn regarding focal lesions or a diffuse involvement of the brain. The type of signs which are found are for the most part nonspecific and often seen in apparently normal individuals. Some of the isolated signs reported are likely due to coincidental disease or secondary complications. The pupillary disturbances, which are quite common, are interesting, but no significant conclusions can be drawn from this fact other than that it is likely part of the general disturbance of the sympathetic nervous system known to be present in this disease. The same may be said of dermographia.

Summary

The literature was reviewed on neurological findings in schizophrenia and a study of this subject made on sixty-five cases of schizophrenia chosen because of the presence of some neurological sign or signs in each of them.

Conclusions

Various isolated neurological signs are found in schizophrenia, the most frequent and possibly the most significant being pupillary irregularities, dermographia, and poor coördination. No conclusions can be reached regarding localization or type of malfunctioning areas which might be present in the brain, other than that some of the signs are apparently on the basis of the general

(Continued on Page 142)

Postgraduate Courses For 1940

Short, intensive postgraduate courses will be given in the following subjects in Detroit or Ann Arbor during 1940:

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Anatomy
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Diseases of Blood and Blood-Forming Organs
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Neuropsychiatry
Nutritional and Endocrine Problems
Ophthalmology and Otolaryngology
Pathology
Pediatrics
Proctology
Roentgenology
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The *Extramural Courses* will begin April 1 and continue throughout the month of April in the following centers:

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Grand Rapids
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Mt. Clemens
Saginaw
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The announcement of courses will be available shortly and will be sent upon request.

Department of Postgraduate Medicine
University Hospital
Ann Arbor, Michigan

EDITORIAL

Paul de Kruif Compliments the Michigan State Medical Society

■ In a series of articles in the November, December and January numbers of *The Country Gentleman,* under the title, "The People Demand Public Health," Paul de Kruif, the leading American writer for the people on problems relating to their physical welfare, discusses the problem of raising the level of health in the United States without sacrificing the gains which we have already made. In the last of these illuminating articles he devotes a considerable portion to the Michigan State Medical Society and its voluntary health insurance plan. We quote:

"The doctors of the Michigan State Medical Society believe that they have found the answer. For nine years this progressive and public-spirited organization of physicians has been growing more and more impatient with the tragedy of Michigan's millions sick without money to buy medical care, and with the injustice to the doctors themselves doing a good third of their work for no pay. For nine years the Michigan State Medical Society has had its experts studying every known plan for health insurance, compulsory as well as voluntary.

"Now they have taken action. For adequate medical care of all of Michigan's people in low-income brackets —if they want that care—Michigan's doctors have organized a voluntary nonprofit corporation, Michigan Medical Service. Every licensed physician in the state can belong to it. State law has been passed, enabling it. A board of directors composed of physicians and laymen administers it. The State Insurance Department supervises it. What will it do for Michigan's sick people?

"Families with incomes of $2,500 and under, or individuals with a maximum income of $2,000, organizing themselves into groups of not less than twenty-five people, can obtain medical care from doctors of their own choice. The maximum yearly payment, for a family, for this service is $54. The employer can contribute part of the cost to help employees obtain benefits of this plan. This entitles them to home and office medical care and hospital visits—to an extent of $875. And the hospitals of the state have also organized a group service for care at a yearly cost of $24 per family.

"What of the masses of Michigan's people without the necessary $78 per family per year for medical and hospital care? Michigan Medical Service has organized a medical relief division. For those who are destitute or in the very low income group—the medically indigent—arrangements may be made with governmental agencies to pay all or part of the subscription cost. This is specifically provided for in the law. These medically indigent, too, will have medical care from doctors of their own choice.

"What, then, would be the Federal Government's part in aiding the doctors of states organizing such group medical service for all citizens who can't pay adequate medical service individually? Under a national health law, the Federal health authority could make direct grants in aid to such states as cannot by themselves bear the total cost of the state-wide medical care of their people in those income brackets where sickness may at any time mean financial disaster.

"Each state's medical needs are different. But the Michigan medical-care plan can be made flexible enough to fit the needs of any American locality. At the same time, every state must cut and try in the business of what income brackets should be included, what fees are fair to the doctors, what subscription rates for medical service can be borne by the people.

"A national health law encouraging compulsory health insurance in any state would antagonize not only that state's but the nation's doctors. But if the national health law will explicitly encourage every state's doctors to do as Michigan's doctors have done—to work out their own medical-care system—the doctors can and will go on giving medical care while the bookkeeping details are being worked out."

Industrial Health Problems

■ It was pointed out in the January Journal that about 90 per cent of the health problems of the industrial workers are not industrial in nature, and that about 65 per cent of all employed people are treated by general practitioners for occupational injuries and diseases, as well as all other sickness and injuries. So it is evident that the health of the workers is predominantly in the hands of general practitioners. In view of this, and because of rapidly increasing interest on the part of industrial management in the health of the workers, it is clear that here is a job for the medical profession.

Disease Prevention

Industry particularly wishes measures for disease prevention. True enough, the official public health agencies have their disease prevention

programs and their industrial hygiene activities, however, there is much (for which industry expects to pay) over and above these that can be done in industry by general practitioners. These include pre-employment and periodic health examinations, and advice to management on the control of real and possible sources of disease in their plants. To do these properly, some knowledge of industrial conditions is necessary.

You Can Help

No doubt many of you treat patients from industry even though you do not regard yourself as industrial physicians. When you discharge these for light work or usual work, do you know enough about their jobs to justify your recommendations? When you return patients to industry with unpreventable physical handicaps, how far can you go in assisting in their rehabilitation? When you suspect an occupational disease, do you know that the exposure claimed is an adequate cause of that disease? If you have no direct contacts with industry, can you understandingly coöperate with industrial physicians in their case finding programs in order that the workmen may derive maximum benefits? And are you informed on means of coöperating with official health agencies in the handling of the health problems of the employed population? All of these are questions which are coming to the front in this great industrial State, and the Michigan State Medical Society is preparing to meet them through the Committee on Industrial Health.

The Afflicted-Crippled Child

■ Requests, from several County Societies that The Council present a guiding statement for our members in the handling of the unfortunate children requiring state aid in treatment of their afflictions, have been admirably satisfied by the statement sent out to each member as a secretary's letter and also printed below.

Certain politicians seem desirous of making a political football of the care of these children. The first "economy" move consisted of the announced intention of hiring a business administrator and six medical coördinators, meaning an additional expense of more than thirty thousand dollars. (Each county now has a Social Welfare Commission which has machinery for investigating the economic status of applicants for state aid.) This amount would provide medical or surgical expense of twelve hundred children for a year or complete care for two hundred crippled or afflicted children.

The statement of principles, as prepared by The Council, is clear and definite. Following this chart of procedure will achieve the most toward a humanitarian, unpolitical and intelligent handling of these future citizens of the state.

Statement of The Council

Four factors enter into the problem of the afflicted and crippled child, viz.:

(a) Statutes providing state-aid
(b) Inadequate appropriations
(c) An unpredictable commodity (sickness)
(d) An established fee-schedule

The Statutes were revised in 1939 and gave the Crippled Children Commission more power in the control of commitments, but failed to provide funds for the employment of coördinators.

In the words of Governor Dickinson, the appropriations were too drastically cut.

Sickness being an unpredictable commodity, deficits in appropriations may occur.

The determination of the case-load is not the great problem, but the determination of what proportion of the case-load is the responsibility of the State and what part is the responsibility of the family, is the problem—in other words, the problem is one of efficient economic filtering.

In 1933 fee schedules A and C were established in conference of the Crippled Children Commission and the MSMS and were based on costs to the physician of rendering the services. Any reduction in these schedules is demanding a service at less than its cost of production. This is not done by the State in the purchase of any other commodity or service.

Any other group would refuse to render service or supply commodities on such a basis; but in the interests of public safety, physicians, as a group, cannot "strike."

The physicians of Michigan recognize only one quality of medical care—the best; and the children of Michigan, irrespective of their economic status, are entitled to this quality of medical and surgical care.

Due to the nature of medical and surgical services, no lay organization can set equitable fees for such services without consultation with the medical profession.

Should schedules A and C be reëstablished the doctors of the State of Michigan might well adopt the plan of coöperating with the State of Michigan and the Crippled Children Commission by reëstablishing the Medical Filter Board in all counties of the State—these boards to pass on medical and surgical need and urgency—providing the Crippled Children Commission will enforce the Economic Filter, free from political intrigue.

In the event that Schedules A and C are not re-established by the C.C.C., rather than accept ridiculously low fees, the physicians of Michigan might well return to their traditional right of rendering charity to the individual (not the State) whom they personally determine so deserving.

This imposition on the medical profession may persist until such a time as we have a change in the policy of the state administration or the time when it can be made a legislative issue in which the laborer is considered worthy of his hire.

Keeping Records

■ Many of the recent attacks made upon the medical profession have brought out the fact that most doctors do not know "what it costs them to do business." We have always maintained, as a group, that our costs amounted to about fifty per cent of the gross income. However, some doctors do not believe that to be true and claim they can make a profit taking care of relief clients. There are a number of factors which they do not consider. Among them:

The average doctor is able to practice actively less than twenty years.

When disability of the doctor occurs, his income ceases entirely.

He is dealing with a very fragile and perishable commodity; one error of judgment may be the termination of his ability to attract enough patients to make a living.

When he passes from this earth about the only thing he leaves his family, from his business, is uncollectable accounts.

Much of his personal expense, while not deductible in computing income tax payment, is directly responsible to his business.

The Charity You Forget

The doctors donate more to charity than any other group of people but since it is not donated to organized charity he cannot deduct it from his income tax report and the donation is not taken into account by those who solicit him for contributions. This is partly so because the average doctor does not know how much charity he does, which brings us to the matter of keeping records.

Why Not Know

Any public accountant knows that every item of business should be made a matter of record, a charge made, and then when indicated, charged off to charity. When this is done, together with the usual bookkeeping system, it is easy to know how much it costs to make a call at the house; how much it costs, per mile, to go out into the country; and how much it costs to see a patient in the office. There are probably very few doctors in Michigan who can see a patient in the office for seventy-five cents, and not lose money; and there are still fewer doctors who can make house calls for a dollar and a half, and not lose financially.

Preventive Medicine Records

There is a determined effort on the part of some public health officials to take away from the practitioner the field of preventive medicine. The most difficult argument to refute is that the general physician does not keep records and consequently there is no way of determining who and how many are protected from preventable disease. Keeping an accurate account of the preventive measures performed will pay big dividends to the profession in the end. If you keep good records, the records will keep you.

Haste Is Necessary

■ The Michigan Society for Group Hospitalization is making an exception in its plans to only accept applicants in groups of ten or more and will accept individual physicians under their plan. This move indicates the coöperative attitude of the M.S.G.H. and it is hardly necessary to advise each member to take advantage of this offer.

The application must be received by them by February 15. So, do not delay.

Welcome, North Carolina Medical Journal

■ The Journal of the Michigan State Medical Society congratulates the Medical Society of the State of North Carolina on its newly established *Journal.* Its editor, Wingate M. Johnson, has long been known as a medical writer and the first number indicates that the new journal will take its place among the leading medical publications of the United States. Our best wishes to Dr. Johnson and assurance of complete coöperation of our staff.

Re-elected

■ The Council at its annual meeting expressed their appreciation of the invaluable service given by Dr. Foster, Dr. Hyland and Mr. Burns, by



L. Fernald Foster, M.D.



Wm. J. Burns, LL.B.



Wm. A. Hyland, M.D.

continuing them in their respective positions of Secretary, Treasurer, and Executive Secretary. Their unusual innate ability in their fields of service and the unstinted time and labor they have so willingly given is one of the chief factors in the maintaining of the Michigan State Medical Society among the leading progressive state societies of the country.

New Dean for Wayne University College of Medicine



Edgar H. Norris, M.D.

■ Edgar H. Norris, M.D., was appointed Dean of Wayne University College of Medicine, December 12, 1939. He had been head of the Department of Pathology since December, 1938. Dr. Norris was born October 19, 1893, at LaGrange, Indiana. He received his formal education at the University of Minnesota, from which he obtained the degrees: B.S., 1915; M.A., 1916, M.D., 1919. Upon graduation he was instructor in anatomy and pathology at his Alma Mater for three years and then did graduate work in embryology at Johns Hopkins University. After interning at Minneapolis General Hospital, he became an associate of Dr. Arnold Schwyzer of Saint Paul, Minnesota. Following a period of illness he decided to enter the field of teaching and became a graduate student in the Department of Pathology of the University of Minnesota. He was made head of the Department of Pathology at Wayne University College of Medicine in 1938 and in this capacity he has been very successful in developing the elective courses in the postgraduate level. Under his administration of the department the first Fellowship in Cancer was established at Wayne University College of Medicine by the National Advisory Council.

The new dean understands the problems of the private practitioner. He is actively interested in postgraduate education and stands solidly with the Continuation School of Medicine of the Wayne County Medical Society.



Wilfrid Haughey, M.D., Battle Creek
Chosen Chairman of the Publication Committee for 1940.

New Councilors



O. O. Beck, M.D.



R. S. Morrish, M.D.

O. O. Beck, M.D., was born in Grand Island, Nebraska and after pre-medical studies at Central Wesleyan College, and pre-clinical medical work at Missouri University, he received the degree of Doctor of Medicine at Northwestern University Medical School in 1920. He interned at Harper Hospital at Detroit and subsequently spent seven months with the American Relief Administration in Russia as Medical Director of the Orenburg District, during the famine in 1922. He then practiced medicine for a short time in Detroit, and in the summer of 1923 began practice in Birmingham. He has been secretary of the Oakland County Medical Society for the past three years and was chairman at the recent Secretaries' Conference held in Lansing. He was appointed councilor of the Fifteenth District on January 15, 1940, to fill the unexpired term of George A. Sherman, resigned.

R. S. Morrish, M.D., a native son of Flint, was raised on a farm and received his degree from the University of Michigan Medical School in 1912. After a brief period of practice in Lorain, Ohio, he entered general practice in Flint, but limited his practice to surgery in 1920. He has served in various capacities in his county society and was a member of the first Committee on Maternal Health of the Michigan State Medical Society. He has been on the staff at Hurley Hospital, Flint, since 1912 and has been Director of General Surgery since 1931. He is also on the staff at St. Joseph's Hospital. He is chairman of the Genesee County Chapter of the American Red Cross, and was Director of the Genesee Area U. S. Veterans' Administration from 1919 to 1938. He retired from the Army in 1919 after two years of service with the rank of Major. He was appointed councilor of the Sixth District on January 15, 1940, to fill the unexpired term of I. W. Greene, resigned.

Do Not Forget Your Postgraduate Program for 1940

"A few physicians increase in knowledge from within and grow from their own doing. These are the innate investigators. The rank and file require outside help to grow and to progress. Books, meetings, contacts, discussions, teachers, are our armamentarium for progress. Like the 'spring tonic' of past days, all of us need some of this medicine at least annually, better if it comes more frequently. A large majority of physicians know their need and seek treatment."—Henry A. Christian, M.D.

YOU AND YOUR BUSINESS

OBJECTIVES AND ACTIVITIES OF M.S.M.S.

Sociologic

The Michigan State Medical Society and its component county societies bring you these valuable benefits of membership:

1. Accords position of social responsibility in the community—the trust and opportunity of the medical profession to assume leadership in all medical matters.
2. Continual development and maintenance of confidence in the medical profession—in *you* —by a constant alert program of public relations by your state society.
3. Your medical society acts as sales ambassador of the medical profession in your community.
4. Results from unified action to solve problems of distribution of medical care to all groups in the state.
5. Unites you with those who strive to maintain what you know is best for your patients and yourself.
6. Authentic information to an inquiring public regarding good medical service and the standing of practitioners.

You cannot afford to be outside the Society. Your destiny is intimately related to the success of your county, state and national medical organizations.

CONSENT OF PARENT OR GUARDIAN

The general rule is that the physician has no legal right to render professional services to a minor without the specific or implied consent of his parent or guardian, excepting in emergencies and then for the sole purpose of saving life. . . . Since public health nurses, school nurses, and social workers nowadays take minors almost promiscuously into institutions and to private physicians for various purposes without having been safeguarded by the proper consent from the parents, physicians are taking great chances in courting malpractice actions in attending such cases. Of course, so long as everything goes well and the minor claims no injury, well and good; but let the minor seemingly be injured, then adverse litigation involving the physician is most apt to follow.

Medical Jurisprudence, by Carl Scheffel, Ph.B., M.D., LL.B. P. Blakiston's Son & Co., 1931.

OCCUPATIONAL DISEASE REPORTING LAW

In 1911, the Michigan Legislature placed on the statute books an occupational disease reporting law (Act No. 119 of the Public Acts of 1911—Section 8613).

This Act provides that every physician, hospital superintendent or clinic registrar having knowledge of a case of occupational disease shall, within ten days, report same to the State Department of Health on forms provided by that Department, giving the name and address of the patient, name and business address of the employer, the business of the employer, the place of the patient's employment, the length of time of his employment in the place where he became ill, the nature of the disease, and any other information required by the State Department of Health. These reports are declared by law *not to be public records.*

The State Health Commissioner is authorized to provide suitable blanks for reporting occupational diseases, and instructions for their use, and to furnish them freely to registered physicians, medical clinics, hospitals and industrial plants. He is also authorized to publish periodically statistical summaries of all occupational diseases reported.

Failure to make these reports required by the law is deemed a misdemeanor.

NATIONAL CONFERENCE ON MEDICAL SERVICE

The National Conference (formerly the Northwest Regional Conference) will hold its fourteenth annual meeting at the Palmer House, Chicago, on Sunday, February 11, 1940. All

state medical societies have been invited to send representatives to the Conference, designed to provide a medium for the verbal exchange of information on progressive medical service activities being conducted throughout the United States, and to discuss the solution of problems arising from the distribution of medical service to all classes. The Conference affords an opportunity for physicians officially associated with or personally interested in medical economics to exchange ideas for the good of the profession and the public.

The 1940 program was designed to give sound practical information on problems and programs facing the profession, individually and as a group.

Program

Registration—9:30 a. m.

MORNING SESSION—10:00 a. m.

I. Group Medical Care and Group Hospitalization Programs
   1. Missouri's Program (10 min.).....
      C. F. Vohs, M.D., St. Louis, Mo.
   2. Experiences of Associated Hospital Service Plan of New York (10 min.).....
      David H. McA. Pyle, New York City
   3. Michigan Medical Service (10 min.).....
      Henry R. Carstens, M.D., Detroit

   Q and A Period (30 min.)
   Leader: R. L. Sensenich, M.D., South Bend, Ind.

II. Allocation of Federal Funds to States (20 min.) .....R. G. Leland, M.D., Chicago

   Q and A Period (15 min.).
   Leader: Wm. F. Braasch, M.D., Rochester, Minn.

III. Recent Developments on the National Scene..
      E. H. Cary, M.D., Dallas, Texas

LUNCHEON SESSION—12:00 M.

IV. Business Meeting
   1. Report of the year. Election of Officer. Selection of place and time of 1941 meeting.
   2. Address (30 min.).....
      Paul G. Hoffman, South Bend, Ind.
      President, The Studebaker Corporation

AFTERNOON SESSION—2:15 p. m.

V. Effective Public Relations (20 min.).....
      E. J. McCormick, M.D., Toledo

   Discussion (10 min.).....
      Morris Fishbein, M.D., Chicago

VI. Medical Welfare Programs:
   1. Farm Security Administration (10 min.)...
      R. C. Williams, M.D., Washington, D. C.
   2. Outdoor Indigent Care (10 min.).....
      Hilton S. Read, M.D., Atlantic City, N. J.
   3. Medical Relief in Chicago (10 min.).....
      C. H. Phifer, M.D., Chicago
   4. Medical Surveys (10 min.).....
      Creighton Barker, M.D., New Haven, Conn.

   Q and A Period (30 min.)
   Leader: Ernest E. Shaw, M.D., Indianola, Iowa

L. Fernald Foster, M.D., Bay City, President of the National Conference, invites all members of the Michigan State Medical Society to attend the National Conference on Medical Service meeting in Chicago.

ROY HERBERT HOLMES CHOSEN EDITOR

Roy Herbert Holmes, M.D., of Muskegon, was elected by The Council at its Mid-winter Meeting of January 13-14, 1940, as editor of The Journal of the Michigan State Medical Society.



Roy Herbert Holmes, M.D.

Dr. Holmes assumes the mantle of James H. Dempster, M.D., who for the past twelve years has been editor of The Journal and who resigned as of December 31, 1939. The Council paid tribute to Dr. Dempster and presented him with a scroll in recognition of his long service to the Society and to Medicine.

The new Editor has had a decade of experience to qualify him for his new work. During six of these years he was editor of the *Muskegon County Medical Bulletin.* A Who's Who account of Dr. Holmes was published in the December Journal.

Congratulations, Dr. Editor, and best wishes for full success and enjoyment in your new position!

Has your County Medical Society held a "State Society Night" to learn from your State Officers what problems are facing you and Medicine?

MID-WINTER MEETING OF THE COUNCIL, M.S.M.S.

January 13-14, 1940

FIRST SESSION

1. *Roll Call.*—The meeting was called to order by Chairman Henry R. Carstens, M.D., in the Judge Woodward Room, Statler Hotel, Detroit, at 10:25 a.m., with all Councilors and officers in attendance. Also present were State Health Commissioner H. A. Moyer, Deputy Commissioner Carleton Dean, Drs. J. H. Dempster and J. J. O'Meara, and Executive Secretary Wm. J. Burns.

2. *Introduction of New Councilor.*—Chairman Carstens introduced to The Council, Dr. R. J. Hubbell of Kalamazoo, Councilor of the Fourth District.

3. *Minutes.*—The minutes of the meeting of the Executive Committee of The Council, December 15, 1939, were approved as read.

4. *Appointment of New Councilors.*—President Corbus presented nominations to fill the positions of Councilor left vacant by the resignations of I. W. Greene, M.D., of the 6th District, and G. A. Sherman, M.D., of the 15th District. President Corbus presented the name of Ray Morrish, M.D., Flint, as Councilor for the 6th District; and O. O. Beck, M.D., of Birmingham as councilor for the 15th District, to fill the respective unexpired terms. Motion of Drs. DeGurse-Miller that the appointment of Drs. Morrish and Beck be confirmed. Carried unanimously.

5. *Secretary's Annual Report* was read by Dr. Foster, as follows:

SECRETARY'S ANNUAL REPORT

I herewith submit the report of the Secretary for the year 1939.

The activities of the year just ended placed great demands of time and effort on the Society's administrative personnel, and most especially upon the Executive Committee of its Council. These were occasioned by executing the usual projects of the Society and the added duties of developing, for operation, Michigan Medical Service.

Membership

The total paid membership for 1939 was 4,383 (plus 42 Emeritus and Honorary Members), with net dues of $45,078.25 accruing to the society. The number of physicians with unpaid dues at the end of 1939 was 73. The membership tabulation for the years of 1938 and 1939 showing net gains and losses, unpaid dues and deaths is as follows:

1938	1939	Gain	Unpaid	Deaths
4,205	4,383	178	73	63

With an estimated 4,700 potential members of the Michigan State Medical Society, the present membership of 4,425 would indicate 275 eligible non-members in the State. With a steady increase in the membership during the past three years (over 800), it is very evident that the society is rapidly approaching the time when only a slight increase can be expected.

MEMBERSHIP RECORD

County	1938	1939	Loss	Gain	Unpaid	Deaths
Allegan	24	23	1	–	1	–
Alpena-Alcona-Presque Isle	18	20	–	2	–	–
Barry	14	14	1	–	–	–
Bay-Arenac-Iosco-Gladwin	74	77	–	3	–	1
Berrien	62	68	–	6	4	1
Branch	23	24	–	1	–	1
Calhoun	118	117	1	–	2	1
Cass	15	13	2	–	–	1
Chippewa-Mackinac	23	23	–	–	1	–
Clinton	10	11	–	1	–	–
Delta-Schoolcraft	30	29	1	–	1	–
Dickinson-Iron	24	19	5	–	1	1
Eaton	29	28	1	–	1	–
Genesee	155	163	–	8	7	2
Gogebic	26	23	3	–	1	1
Grand Traverse-Leelanau-Benzie	41	42	–	1	–	–
Gratiot-Isabella-Clare	40	36	4	–	1	1
Hillsdale	25	27	–	2	–	1
Houghton-Baraga-Keweenaw	38	42	–	4	–	1
Huron-Sanilac	26	26	–	–	1	2
Ingham	139	141	–	2	–	3
Ionia-Montcalm	40	42	–	2	–	–
Jackson	97	93	4	–	–	–
Kalamazoo*	132	118	14	–	–	2
Kent	236	234	2	–	6	4
Lapeer	14	16	–	2	–	–
Lenawee	44	44	–	–	1	2
Livingston	17	21	–	4	–	1
Luce	11	10	1	–	–	1
Macomb	38	39	–	1	–	–
Manistee	16	16	–	–	–	2
Marquette-Alger	42	40	2	–	2	1
Mason	12	9	3	–	2	2
Mecosta-Osceola	19	16	3	–	–	–
Menominee	13	14	–	1	–	–
Midland	14	15	–	1	–	–
Monroe	34	35	1	1	–	–
Muskegon	82	79	3	–	–	1
Newaygo	10	13	–	3	–	1
Northern Michigan (Antrim-Charlevois, Emmet-Cheboygan)	31	33	–	2	1	2
Oakland	123	136	–	13	1	4
Oceana	10	11	–	1	–	–
O.M.C.O.R.O. (Otsego, Crawford, Oscoda, Montgomery, Roscommon, Ogenaw)	17	23	–	6	–	–
Ontonagon	8	8	–	–	–	–
Ottawa	32	32	–	–	1	–
Saginaw	94	102	–	8	–	1
Shiawassee	32	31	1	–	–	1
St. Clair	51	55	–	4	–	1
St. Joseph	19	23	–	4	–	–
Tuscola	32	32	–	–	–	–
Van Buren	–	27	–	27	–	–
Washtenaw	162	174	–	27	–	–
Wayne	1,746	1,855	–	109	37	17
Wexford-Kalkaska-Missaukee	22	21	1	–	–	–
	4,205	4,383	53	231	73	63
		4,205		53		
		178		178		

Emeritus & Honorary Members..... 42
Paid Members 4,383
Total 4,425

Deaths During 1939

During 1939 we regretfully record the deaths of the following sixty-three members:

Bay County—J. W. Leininger, M.D., Gladwin.
Berrien County—R. B. Taber, M.D., Benton Harbor.
Branch County—W. C. Danley, M.D., Union City.
Calhoun County—Wm. H. Haughey, M.D., Battle Creek.
Cass County—S. E. Bryant, M.D., Dowagiac.
Dickinson-Iron County—Edward M. Libby, M.D., Iron River.
Genesee County—A. T. Paull, M.D.; Hugh A. Stewart, M.D., Flint.
Gogebic County—Robert I. Prout, M.D., Wakefield.
Gratiot-Isabella-Clare County—J. A. Reeder, M.D., Clare.
Hillsdale County—James A. Bates, M.D., Camden.
Houghton-Baraga-Keweenaw County—R. J. Maas, M.D., Houghton.
Huron-Sanilac County—A. J. Howell, M.D., Bay Port; J. O. Lunn, M.D., Harbor Beach.
Ingham County—O. H. Freeland, M.D., Mason; Robert E. Miller, M.D., Lansing; Samuel Osborn, M.D., Lansing.
Kalamazoo County—Ward E. Collins, M.D.; Leo J. Crum, M.D., Kalamazoo.

*Kalamazoo—1938 inc. Van Buren County

Kent County—John N. Holcomb, M.D., Hillis D. Rigterink, M.D., Edward W. Tolley, M.D., H. C. Wolfe, M.D., Grand Rapids.
Lenawee County—George H. Lamley, M.D., Blissfield; C. S. Lane, M.D., Hudson.
Livingston County—H. P. Mellus, M.D., Brighton.
Luce County—Clarence D. Hart, M.D., Newberry.
Manistee County—David A. Jamieson, M.D., Arcadia; A. A. McKay, M.D., Midland.
Marquette-Alger County—Theodore A. Felch, M.D., Ishpeming.
Mason County—G. O. Switzer, M.D., Wm. Herbert Taylor, M.D., Ludington.
Muskegon County—A. B. Egan, M.D., Muskegon.
Newaygo County—N. DeHaas, M.D., Fremont.
Northern Michigan (Antrim, Charlevoix, Emmet, Cheboygan)—John T. Craddock, M.D., Mackinac City; George W. King, M.D., Charlevoix.
Oakland County—Frank S. Bachelder, M.D., Daniel G. Castell, M.D., Pontiac; E. J. Linsday, M.D., Walled Lake; C. S. Strain, M.D., Rochester.
Saginaw County—Chester H. Sample, M.D., Saginaw.
St. Clair County—Alexander J. MacKenzie, M.D., Port Huron.
Shiawassee County—Walter E. Ward, M.D., Owosso.
Washtenaw County—Conrad George, M.D., Francis A. Scott, M.D., Ann Arbor; Thomas W. Paton, M.D., Ypsilanti.
Wayne County—C. H. Belknap, M.D., Wm. R. Clinton, M.D., Charles W. Courville, M.D., C. R. Davis, M.D., P. C. Dodenhoff, M.D., Bernhard Friedlaender, M.D., Frank Kilroy, M.D., Stephen H. Knight, M.D., George C. Kreutz, M.D., R. Lee Laird, M.D., David M. Levine, M.D., Angus McLean, M.D., Edwin D. Merritt, M.D., James I. Murray M.D., Detroit; Francis J. Grandfield, M.D., New Boston; David McClurg, M.D., Highland Park; Thaddeus Walker, M.D., Grosse Pointe.

Financial Status

The fiscal year closed December 20, 1939, and the statement of our certified accountants, Ernst & Ernst, shows the financial condition of the Society on that date. The following facts are noted:

1. The assets of the Society are listed at $43,399.91 as compared with $43,821.55 of a year ago.

2. THE JOURNAL income was $19,603.92, composed of subscriptions of members $6,439.75; other subscriptions, $82.00; advertising receipts $11,051.29; JOURNAL cuts, $263.45; and reprint sales $1,767.43. The The JOURNAL expense totaled $18,778.65, consisting of $2,800.00 for editor's salary and expense; printing and mailing $10,567.66, reprints $1,367.95, discounts and commissions on advertising $1,993.04, postage $250.00 and $1,800.00 allocation for administrative and general office expense, a net income of $825.27 (with subsidy). Add to this the $1,800.00 allocation (as was done in 1938), and our net income on THE JOURNAL (with subsidy) equals $2,625.27.

3. Dues Income was $45,078.25, an increase of $2,041.62. Interest received totaled $763.06, an increase of $54.73. Miscellaneous receipts of $84.37 brings the total income to $46,750.95. The usual expenses totaled $34,776.24, leaving $11,974.71.

4. The Medical Defense fund received no allocation of dues in 1939. $6,000.00 was assigned to Wm. A. Hyland, M.D., as trustee under bond to administer it for any medical-legal obligations of the Society incurred up to December 31, 1939; the remainder of this MSMS Defense Fund, in the amount of $1,926.23, was transferred to the general funds of the Society.

5. The Society agreed to furnish working capital of $10,000.00 to Michigan Medical Service, and have also advanced $6,760.68 additional for organization expense. This total of $6,760.68 is to be repaid to the Society when, as and if the earnings of Michigan Medical Service are sufficient.

   After withdrawal of $16,760.68 for Michigan Medical Service and elimination of the Medical Defense Fund by transfer of $6,000.00 in assets to a trustee, the net worth of the Society is $24,224.35 as compared to $26,601.84 a year ago (a decrease of $2,377.49). The assets of the Society will be increased when Michigan Medical Service shows a profit and repays the $16,760.68. The sum of $6,000.00 is considered adequate to care for any medical-legal obligations incurred to December 31, 1939, and any funds remaining will be returned to the Society.

   The invested funds of the Society are in bonds of well-diversified companies and in U. S. Government Savings Bonds. They have a market value of $28,667.50, a decrease of $111.50 from a year ago.

   The coming year will probably call for further advances to Michigan Medical Service which, with necessary routine operative charges, will tax the revenue of the Society to maintain its present favorable financial status.

The 1939 Annual Meeting

A record attendance for an out-of-state meeting was established at the 1939 Grand Rapids session. There was a physician-attendance of 1,250, with a total registration of 1,810. The General Assembly type of scientific program was maintained, elicited much favorable comment and attracted satisfactory attendance even through the extra day of sessions provided in the 1939 program.

The Technical Exhibits, 100 in number, received very generous attention from the registrants, and thereby maintained the established goodwill among the exhibitor group. The large number of exhibits, made possible by the available space in Grand Rapids, not only paid the entire costs of the Annual Meeting but netted a substantial profit to the Society.

For the first time in several years, space was provided for a small Scientific Exhibit. The exhibits were sponsored by institutions and organizations.

During 1939 three County Secretary Conferences were held. One in Lansing on January 15, 1939; one in Marquette for the Upper Peninsula on March 26, 1939, and one in Grand Rapids on the occasion of the Annual Meeting. The Conferences were well attended and served to correlate the various County Society activities and to dessiminate much detailed information to our fifty-four component units.

Committees

Too much credit cannot be accorded to the Committees of the State Society for their activities during 1939. In addition to developing new projects and sustaining the usual programs of general medical activity, the year of 1939 presented the biennial legislative problems. These were efficiently directed by the Legislative Committee to the end that good medical legislation resulted, including the enabling act for voluntary group medical care.

Society Activities

During the past year, your two Secretaries, with members of The Council and other officers, endeavored to officially visit most of the fifty-four component county units.

It is gratifying to report that the esprit de corps of the County Societies is of the highest calibre, and there is an ever-increasing interest in the scientific and economic programs emanating from the parent organization.

During the past year MICHIGAN MEDICAL SERVICE, the Society's voluntary, non-profit group medical care plan, was developed. This development entailed a tremendous sacrifice of time and effort on the part of your administrative personnel.

A new extra-mural Postgraduate Center was authorized for establishment in Mt. Clemens. This center will function during the coming year.

Through the new State Health Commissioner, H. Allen Moyer, M.D., a very fine liaison has been developed with the Michigan Department of Health.

Governmental and press contacts have been maintained throughout the past year to the end that the best interests of the people's health might be served and the greatest possible utility made of our physicians' services.

Publicity of the State Society's activities has been made to the individual members and county societies through various bulletins and letters. During the year nineteen Secretary's Letters were published; fourteen to the county secretaries and five to the entire membership.

Sustained interest in many major activities must be maintained during the coming year—*e.g.,* the problems of the Crippled and Afflicted Child, and Medical Welfare.

Recommendations

Your Secretary concludes his report respectfully recommending that:

1. Consideration be given to the establishment of a part or full-time Press Relations contact.

2. An immediate public relations drive of information to county societies and members be instituted through *State Society Night meetings,* attended by the Councilor, the Public Relations Committee member, and such other M.S.M.S. officers as may be able to attend.

3. The transmission of information and facts on socialized medicine to the public be established by individual doctors of medicine in their offices and by re-created Speaker's Bureaus in each county society. "An informed public means a free profession."

4. Every County Society be urged to make contacts with its doctors of medicine County Social Welfare Board re arrangements for services to welfare clients and the medically indigent; and that each Society submit tentative agreements to the State Society for advice and suggestions so that generally uniform agreements may be instituted throughout the State. This recommendation is made in order that good quality medical care may be assured and equitable fee schedules established.

5. The General Session type of program at the Annual Session be maintained in 1940.

As we review the past year, it becomes more and more apparent that the location of our Executive Office, in the capital city, has been well justified. This establishment has resulted in better coöperative efforts between the Michigan State Medical Society and the various agencies of government—a liaison vital and necessary if the best interests of both the public and medical profession are to be served.

Your Secretary wishes to take this opportunity to express his appreciation to this Council for its splendid coöperation during 1939. It is a real pleasure to congratulate the officers and committees for their interest and efforts in their work. Needless to say, our Executive Secretary, Bill Burns, and his office personnel have been untiring in their efforts in the interests of organized medicine. Mr. Burns has given unstintingly of his enthusiasm, inspiration, and unique organizational ability, and for his valued aid your Secretary is truly grateful.

L. Fernald Foster. M.D.,
Secretary.

The report was referred to the County Societies Committee.

6. *Health Commissioner.*—The Chair called upon Dr. Moyer who discussed the work of the cancer field representative and stated he was going to include in the Health Department's 1940-41 budget an item for the continuation of this service. Dr. Moyer also reported that his department has been successful in obtaining the return of $20,500 from counties which had been repaid by former tuberculosis patients. This amount of money represents approximately 13,000 patient days, and can be used to treat other cases of tuberculosis.

Dr. Moyer was thanked for his attendance and information, and retired from the meeting with Dr. Dean.

7. *Treasurer's Report* was presented by Dr. Hyland as follows:

TREASURER'S ANNUAL REPORT

As treasurer of the Michigan State Medical Society, I wish to submit the following report for the year 1939.

As required by the by-laws of the Michigan State Medical Society, the usual indemnity bond was filed with the secretary of the Michigan State Medical Society.

On January 14, 1939, the $2,000 Central Illinois Public Service 4½% Bond was called at 102½.

On April 15, 1939, the $2,000 Commercial Investment Trust 3½% Bond was called at 103½.

In place of these securities the following bonds were purchased:

$1,000 Kresge Foundation 3½% Bond, due Feb., 1947
1,000 United States Savings Bonds
1,000 Union Pacific 3½% Bond, due 1970
1,000 Consolidated Oil Company 3½% Bond, due 1958

Two of the three issues which are rated as lesser-standard, namely, the Grand Rapids Affiliated Corporation and the New England Gas and Electric bonds, have enhanced in total value of $300 over a year ago. The Grand Rapids Affiliated Corporation Bonds are upon the Grand Rapids Trust Building, which building was recently purchased by the National Bank of Grand Rapids as a result of its amalgamation with the Grand Rapids Trust Company. This will naturally increase the value of these bonds as well as their rating.

The Associate Gas and Electric Bonds have been carried on our books at 25. This company has been in difficulty with the Government over the policy of the management of their large interests for some time and have been threatening to ask for receivership even though they are making money at the present time. We have had a bid out for some time to sell these bonds, but as yet there has been no offer. It is my belief that if they were to liquidate today, the bonds would liquidate at a much higher figure than 25. This bond will eventually be worth much more, when they adjust their Government matters. However, if we can get an offer for the disposal of these two bonds, namely, the Associated Gas & Electric Co., I will be very glad to present it to the Committee.

The following securities were held by the Michigan State Medical Society at the end of 1939:

	Quoted Market Price January 10, 1940
Union Pacific Railroad	$ 972.50
Consolidated Oil Corporation	1,055.00
Associated Gas and Electric Corporation	570.00
New England Gas and Electric	1,400.00
Standard Oil of New Jersey	1,052.50
United Light and Power	2,140.00
Grand Rapids Affiliated Corporation	1,500.00
Consumers Power Company	2,130.00
American Telephone & Telegraph	2,018.00
Kresge Foundation	1,052.50
United States Govt. Savings Bonds	8,800.00
Detroit Edison Company	2,212.50
New York Central Railroad	1,230.00
Govt. Dominion of Canada due 1945	963.75
Govt. Dominion of Canada due 1967	885.00
Canadian Pacific Railroad	1,225.00
Southern Pacific Railroad	1,020.00
National Gas and Electric Corporation—96 Common share	324.00
	$30,605.75

Respectfully submitted,
Wm. A. Hyland, M.D.,
Treasurer

The report was referred to the Finance Committee.

8. *Editor's report* was presented by Dr. Dempster as follows:

EDITOR'S ANNUAL REPORT

In writing this, my final report as editor, I may be excused if I become reminiscent. Up to the time I was approached thirteen years ago by Dr. J. D. Bruce, at the time chairman of the Publications Committee, I had decided to devote all my time to my practice and had no thought of editorship. In the year 1926, the Council had decided to separate the function of editor from that of secretary. Up to this time, the secretary of the society bore the hyphenated title of secretary-editor. In a moment of weakness I agreed to accept the editorship if it were harmonious to the profession. The following January, I made a trek to Grand Rapids to take over the unpublished copy and to obtain details of the office from Dr. Warnshuis. He pushed over to me a desk basket containing three contributed articles which he said comprised the entire copy in his possession for future journals. One of the papers was so poor that it took the shortest route to the wastebasket.

Since that time, THE JOURNAL has been before you and gratifying to yourselves it must be, as well as to myself as editor during the past twelve years, that the demand for THE JOURNAL has increased to such an extent that notwithstanding my efforts to publish the best contributions to medical thought in Michigan, I have handed over to my successor for publication over one hundred contributions of merit. The wisdom of the Council of thirteen years ago has been fully justified insasmuch as THE JOURNAL today and for years past would have been too big a job to combine with the functions of the secretary. It is needless to say that the activities which fall to the lot of the secretary have also increased enormously during this period.

The employment of the J. R. Bruce Publishing Company as printers of THE JOURNAL has proved a happy venture. The very careful, intelligent work of the Bruce Publishing Company has greatly facilitated the work of the editor.

During the past twelve years, I have written over 700 editorials; regarding their quality I have nothing to say. I have endeavored, however, to make them timely and moderate in tone, for I am a firm believer in the persuasive power of reason over emotional appeal. Twelve years of editing has meant persistant watchfulness to see that only the best available material in the most attractive and readable form were accorded publicity and that nothing of a questionable nature got into print.

My association with the officers of the society during this twelve-year period has been intimate and happy and many have been the courtesies I have received, for which I am profoundly grateful. To mention all to whom I am obligated would make a long list.

About three years ago a request was made by the Council to keep the total number of pages (including advertising) within 100 pages. The business office as well as editorial have endeavored to follow this out to the letter as well as in spirit so that as a result, the twelve numbers comprising volume 38 contain 1,140 pages.

I now pass on the editorial mantle to my successor, and since it is a live thing and therefore capable of growth, the younger mind will expand it to larger dimensions and with it go my hope and best wishes for larger and more virile journals than ever before.

Respectfully submitted,

J. H. DEMPSTER,
Editor

The report was referred to the publication Committee.

9. *The Report of Publications Committee* was presented by the Chairman, Dr. Roy H. Holmes.

REPORT OF PUBLICATIONS COMMITTEE

The year of 1939 has been used by the Publications Committee in an attempt to reduce the cost of THE JOURNAL in proportion to the advertising contracts. While the personnel of the Committee changed somewhat at the meeting in Grand Rapids, there has been a continuous endeavor towards achieving this purpose. It has meant making some cuts in page allotment which may be distasteful to certain groups of individuals, but we felt that THE JOURNAL should be a self-sufficient and self-maintaining part of the State Society.

Besides cutting down the number of pages, the activities of the Committee have been continued in other ways. Efforts are being made in all directions to develop more advertising. An agreement now is being considered with an extra advertising solicitor for local advertisers. In order to stimulate advertising contracts we have coöperated with the advertisers in urging the readers to show an interest in the advertising in THE JOURNAL. The Central Office has worked with the Publications Committee and contacted a number of our exhibitors who were not advertising. This type of contact is bound to be of value either now or later.

The dressing-up has been done at no extra cost.

Editorially, the tendency has been toward shorter and more practical papers, using THE JOURNAL as a means of postgraduate education to the physicians. Consequently, a preference has been given to short practical papers rather than to monographs and articles written for record.

One of the major policies of the Publications Committee is to establish a wide variety of different departments of THE JOURNAL. The purpose of this is to segregate news or articles of special interest to an individual physician, and thus make THE JOURNAL more attractive to him.

The Publications Committee has the following recommendations to make to The Council for action beginning January 1, 1940:

1. The Editor's salary will be $1,200 per year plus the usual expense account allowed to officers of the Medical Society. If the correspondence necessary to the Editor's office is to be maintained in a business-like manner, it will entail the half-time services of a stenographer. This will represent an expense of about $800 per year, including postage, telegraph, etc.

2. The Editor will be permitted to name an Editorial Board of five members of the State Society whom he may call upon for advice regarding certain scientific papers.

3. All editorials which may involve the MSMS in controversial matters will be submitted to the Publications Committee of The Council for their O.K. before being accepted for publication.

4. It is felt that the executive office should take over much of the routine work regarding THE JOURNAL.

5. The Publications Committee also requests the Council to determine the amount of free space in THE JOURNAL to be given to the Michigan Medical Service and other semi-organizational activities.

6. It is requested that the advertisers be generously patronized by the officers and members of the Society.

Respectfully submitted,

ROY HERBERT HOLMES, M.D., *Chairman,*
A. S. BRUNK, M.D.
T. E. DEGURSE, M.D.
R. C. PERKINS, M.D.

The report was referred to the Finance Committee.

DR. DEMPSTER HONORED

10. *Tribute to Dr. James H. Dempster,* editor of THE JOURNAL for the past twelve years, was given by Dr. Cummings. The Chairman of the Council presented to Dr. Dempster a scroll in recognition of his long service to the Society and to Medicine, as editor of THE JOURNAL, MSMS. Dr. Dempster responded with appropriate remarks, thanking the Council for its expression of appreciation.

11. *Committee Reports.*—The following reports of committees were presented:

(a) Legislative Committee—report from Executive Secretary Burns.

(b) Industrial Health Committee—report from Executive Secretary Burns.

(c) Distribution of Medical Care Committee—report from Chairman Hartwell was read. Referred to the County Societies Committee.

(d) Maternal Health Committee—report of plans of committee from Chairman Campbell was read.

(e) Iodized Salt Committee—report from Chairman Cowie was read.

(f) Syphilis Control Committee—Minutes of December 28, 1939, meeting were read. This was referred to the Publication Committee. The Chairman of the Council was instructed to informally meet with the Committee re the item of recommended procedures in premarital examinations.

(g) Cancer Committee—Report of meeting of January 12 was given by Secretary Foster. This report was referred to the Finance Committee.

(h) Public Relations Committee—report given by Chairman Foster and referred to the County Societies Committee.

(i) Committee on Scientific Work—Dr. Foster also reported on this Committee, which was referred to the County Societies Committee.

Motion of Drs. Haughey-DeGurse that those reports which require action be referred to the appropriate Committee, the others be received and filed. Carried unanimously.

12. *Dr. Luce.*—Resignation of Dr. Luce as Chairman of the Mental Hygiene Committee was reported by President Corbus. The Chair advised the Council of the illness of Dr. Luce and reported that his condition was progressing well. Motion of Drs. Huron-Perkins that the Secretary be instructed to draft a suitable resolution and send it to Dr. Luce. Carried unanimously. Dr. O'Meara was appointed a Committee of One to send flowers to Dr. Luce.

13. *Liaison Committee with Medical Schools.*—President Corbus spoke briefly of his plan to appoint a committee to act as a liaison between the two medical schools in the study of curriculum, particularly from the standpoint of the interne. Drs. Haughey and McIntyre discussed this matter. Dr. Corbus stated the appointment of the committee would be made shortly.

RECESS.—The meeting recessed at 12:25 p. m. for luncheon.

SECOND SESSION

14. *Roll Call.*—The Council reconvened at 1:35 p. m. All members were present, including Councilors R. S. Moorish of Flint and O. O. Beck of Birmingham. Also Drs. J. D. Bruce and Carl E. Badgley of Ann Arbor, and F. C. Kidner and F. J. Fischer of Detroit.

15. *Afflicted Child Problem.*—The Chair called upon Secretary Foster to give a brief history of the problem. This matter was discussed by Dr. Cummings, who stated several principles involved: (a) the medical profession cannot strike (as a matter of public safety); (b) medical men must always furnish the highest grade of medical service possible; (c) no lay body can be allowed to set M.D. fees without consultation with physicians. Dr. Cummings stated that the final solution is a change in the policy of the administration.

The Chair called upon Drs. Badgley, Kidner and Fischer of the Orthopedic Society for suggestions.

Mr. Burns felt this is not a problem of rates and fees but a matter of control of intake. The solution of the Administration penalizes hospitals and doctors, and antagonizes them at a moment when their coöperation is necessary for the real solution—to cut the load by creation of a filter system.

Dr. Holmes read the resolution of the Muskegon County Medical Society, which was adopted by that Society on Thursday, January 11.

Motion of Drs. Cummings-Haughey that a committee be appointed by the Chair to study the suggestions made and to crystallize the thought of The Council on material to be transmitted to the County Medical Societies re this problem, and that this Committee report at a subsequent session of the Council. Carried unanimously.

Committee: Dr. Cummings, Chairman; Drs. Brunk, Foster, Huron.

16. *Postgraduate.*—The Chair called upon Dr. J. D. Bruce, who generously suggested that inasmuch as the time was limited, his subject be placed on the agenda of the Executive Committee for consideration at a subsequent date, and offered to answer any questions members of the Council might have.

RECESS.—The meeting was recessed at 3:15 p. m.

THIRD SESSION

17. *Roll Call.*—The meeting was called to order at 8:20 p. m. with all members present at the afternoon session also present at this evening's session.

18. *Minutes.*—The minutes of the First Session were read and approved.

19. *Articles of Association of MSMS* are still being studied by the Committee, the Secretary reported. Referred back to Committee for further study and report.

20. *Stephen Currie Case.*—This was presented and discussed. Motion of Dr. Cummings, seconded by several that this be referred back to the Wayne County Medical Society advising that the MSMS will be glad to coöperate if the W.C.M.S. needs any assistance. Carried unanimously.

21. *X-ray Interpretation.*—This matter had been discussed at previous meetings and referred to the Michigan Association of Roentgenologists. Letter was read from Leland E. Holly, M.D., Chairman of the Ethics Committee of the M.A.R., regarding this matter. General discussion followed. It was brought out that some hospitals in the U. P. do take x-rays and send the plates to the University Hospital and other institutions for interpretation by the X-ray Department, which department makes no charge, but some U. P. Hospitals are said to charge the regular rates to the patient. Other U. P. hospitals do the same, except they charge the patient only for taking the plate, not the interpretation. Motion by Drs. Moore-Cummings that the report of the MAR be accepted and filed. Carried unanimously.

22. *Problem of Resort Physicians* coming to Michigan during summer months and practicing without Michigan licenses was discussed. Letter from State Department Inspector was read asking the policy of the MSMS re these violations. After general discussion, motion was made by Drs. Moore-Cummings that a letter be sent to the Inspector advising him to get the evidence in these cases and present it to State Board of Registration in Medicine for action. Carried unanimously.

23. *Finance Committee.*—Chairman Carstens called upon Dr. Moore for full explanation of the 1939 Auditor's Report, after which motion was made by Drs. Holmes-McIntyre that the report of the Auditors be accepted. Carried unanimously.

24. *Drs. Beck and Morrish.*—Chairman Carstens announced the appointment of Councilor O. O. Beck to the Publications Committee, and of Councilor Ray Morrish to the Finance Committee.

Recess—Motion of Drs. Holmes-several that the meeting recess until 9:00 A. M. January 14, 1940, the time being 9:50 P. M.

FOURTH SESSION

25. *Roll Call.*—The Fourth Session was called to order on January 14, 1940, at 9:35 A. M. with all members present.

26. *Minutes.*—The minutes of the second and third sessions were read and approved, motion of Drs. Huron-Hubbell. Carried.

27. *National Physicians Committee.*—This organization was discussed by Secretary Foster, who stated that the officers are present or past officers and others high in the A.M.A., that its objectives are in behalf of the practitioner of medicine and undoubtedly worthy of support. The Council generally discussed the matter. It was felt that the individual physician should decide if he wishes to support the work of the National Physicians Committee.

28. *Report of Individual Councilors.*—The Chair called upon each Councilor to give a report of the condition of the profession in his district. These reports were given verbally and were generally to the effect that the profession is working together harmoniously, and making progress.

29. *Report of County Societies Committee* was given by Dr. Cummings as follows:

MINUTES OF COUNTY SOCIETIES COMMITTEE

(Meeting of January 13, 1940—8 a. m.)

The Chair asked Dr. Haughey to read the report of the Committee which was given to the Council at the 1939 Midwinter meeting. Chairman Cummings stressed the necessity of coöperation by all county societies at this time. Dr. Foster urged that members of the Council must help the Public Relations Committee in bringing facts to the members of the MSMS. The Committee recommends that the Councilors act in conjunction with the Public Relations Committee in its effort to keep the membership fully advised of developments re problems associated with the afflicted-crippled child laws, medical welfare contracts, Michigan Medical Service, as well as numerous other items of much interest and importance.

The Committee also recommends that county societies add to their Committees active young men, in order to get them interested in organized medicine and to prepare them to carry on.

The Committee recommends that the Upper Peninsula Secretaries be contacted with the recommendation that the U. P. Secretaries Conference be held at the time of the U. P. Annual Meeting in July on account of adverse weather conditions in March, and to eliminate the large item of expense connected with a special meeting in the winter months.

The matter of notifying the membership that medico-legal protection is no longer furnished by the MSMS was briefly discussed. Also, that the old line companies do not cover physicians who are not members of their medical societies.

It was suggested that the National Physician's Committee should be discussed by the Council as a whole during its Mid-winter meeting.

N. Y. A. examinations were discussed. Experiences in Dickinson and Bay Counties were related.

Speakers Bureau was discussed. It was suggested that every county society have a committee to select men who are good speakers and refer their names to the Secretary of the MSMS for use in recommending speakers for county society meetings. It was also suggested that speakers of the Joint Committee might be utilized occasionally when the speaker is scheduled to talk to a lay body the same day. In these cases the Joint Committee pays the speakers' expenses.

The meeting adjourned at 10:00 a. m.

REFERENCE REPORT OF COUNTY SOCIETIES COMMITTEE

Your Committee met on January 30 at 10:30 p. m. with the following present: Drs. Cummings, Chairman; Huron, Hubbell, Sladek, Haughey, Miller and Secretary Foster.

The minutes of the morning meeting of the Committee were read and approved.

Secretary's Report—The recommendations of the Secretary were studied.

(a) Press Relations Contact. This important phase of society activity was discussed. Motion of Drs. Miller-Haughey that such a part-time press relations contact be established as soon as possible. Carried unanimously.

(b) Public Relations was discussed. Motion of Drs. Haughey-Huron that an immediate public relations drive of information to county societies and members be instituted through State Society Night meetings, attended by the Councilor, the P.R.C. member, and such other MSMS officers as may be able to attend. Carried unanimously.

(c) Speakers Bureau. Motion of Drs. Sladek-Huron that the transmission of information and facts on socialized medicine to the public be established by individual doctors of medicine in their offices and by re-created speakers bureaus in each county society. Carried unanimously.

(d) Medical Relief. Although county societies have been urged to send in their contracts re medical relief, on motion of Drs. Hubbell-Haughey we reiterate that every county society be urged to make contacts with its doctors of medicine and County Social Welfare Board re arrangements for services to welfare clients and the medically indigent; and that each Society submit tentative agreements to the State Society for advice and suggestions so that generally uniform agreements may be instituted throughout the State. This recommendation is made in order that good quality medical care may be assured and equitable fee schedules established.

(e) General Session type of program at the Annual Meeting was approved on motion of Drs. Miller-Sladek. Carried unanimously.

(f) Motion of Drs. Huron-Sladek that the Councilors be supplied with fuller notes of important actions, in order that they may appreciate the attitudes expressed in the meetings. Carried unanimously.

Motion of Drs. Sladek-Miller that the Secretary's Report be accepted as a whole. Carried unanimously.

Motion of Drs. Hubbell-Miller that the Public Relations Committee Report be approved. Carried unanimously.

The Committee commends the Committee on Distribution of Medical Care for its survey of medical fa-

cilities in Michigan, and recommends its continuance of this important work, moton of Drs. Huron-Hubbell. Carried unanimously.

Motion of Drs. Sladek-Haughey that this Committee recommend to the Council that the Committee on Scientific Work be appointed and be composed of the Secretary of the MSMS as Chairman, plus the officers of Sections, this Committee to be listed in THE JOURNAL under Committee Personnel. Carried unanimously.

Respectfully submitted,

COUNTY SOCIETIES COMMITTEE

H. H. CUMMINGS, M.D., *Chairman*
WILFRID HAUGHEY, M.D.
R. J. HUBBELL, M.D.
W. H. HURON, M.D.
A. H. MILLER, M.D.
E. F. SLADEK, M.D.

Motion of Drs. DeGurse-McIntyre that the report be accepted. Carried unanimously.

30. *Specialty Boards.*—Drs. George Goering, T. S. Conover, D. R. Brasie, R. D. Scott, and C. W. Colwell, of Flint, members of the Genesee County Medical Society, entered the meeting. The matter of specialty boards was presented in a letter from the Genesee County Medical Society read by Mr. Burns. Dr. Goering, President of the GCMS, was called upon and stated the problem of organizations requiring a physician to be certified by the American Boards, and the Boards in turn making it almost impossible for some individuals, particularly those who have been in practice for many years and who lack some of the formal graduate work. to become diplomates thereof. Dr. Brasie discussed the matter and urged that some provision be made so that these men might pass the American Boards, without discrimination. Dr. Goering read a letter from Dr. Olsen, Director of Health of the Flint Public Schools, re the Michigan Department of Public Instruction requirement that physicians be certificants of the appropriate American Board before they may examine school children for special classes. The whole matter was discussed by members of the Council. Motion of Drs. Holmes-Moore that the matter be referred to the Committee on Distribution of Medical Care, with all correspondence in the matter, for investigation of the requirements and methods of certifying by the various American Boards. Carried unanimously. The Genesee County Medical Society is to be invited to send representatives to attend the meeting of the Committee when this matter is considered.

The Chair thanked the members of the GCMS for their attendance, and they retired from the meeting.

31. *Reference Report of Publications Committee* was presented by the Chairman.

REFERENCE REPORT OF PUBLICATION COMMITTEE

The Publication Committee of the Council of the Michigan State Medical Society met and considered the items referred to it by the Council:

1. Editor's Report. This report was received and the Editor thanked for his good report on the progress of THE JOURNAL during the past year.
2. Syphilis Control Committee Report.
   (a) Proposed Letter to Paul DeKruif. This was discussed and it is the consensus of opinion of this Committee that this letter be referred to the Preventive Medicine Committee for consideration and then referred back to the Executive Committee on the Council for any action.
   (b) Item re sending representatives to Washington. This matter was discussed along with the proposed letter to Dr. DeKruif and it was felt that this should also be referred to the Preventive Medicine Committee and through that committee to the Executive Committee.

Respectfully submitted,

PUBLICATIONS COMMITTEE, MSMS

ROY H. HOLMES, M.D., *Chairman*
O. O. BECK, M.D.
R. C. PERKINS, M.D.
A. S. BRUNK, M.D.
T. E. DEGURSE, M.D.

Motion of Drs. Holmes-Perkins that the report as presented be accepted. Carried unanimously.

32. *Reference Report of the Finance Committee* was presented by the Chairman.

REFERENCE REPORT OF FINANCE COMMITTEE

Your Finance Committee had three matters referred to it: (a) report of the Cancer Committee· (b) the report of the Publication Committee; (c) the Treasurer's Report.

(a) The Finance Committee has reviewed the report of the Cancer Committee for 1939. While the budget allottment was $250.00, the Council voted to expend an additional $250.00 for a field representative, making the budget $500.00. The Cancer Committee, therefore, exceeded the budget by $98.42. While we appreciate the fine work done by this committee, we would recommend that in the coming year the Cancer Committee keep within the budgetary allottment.

(b) We accept the Treasurer's Report and recommend to the Council that quotations be obtained on Associated Gas & Electric bonds ($2,000 at 4 per cent —1978) and try to dispose of same if Treasurer Hyland concurs in the advisability of this transaction.

(c) The Report of the Publication Committee indicates a high degree of activity by this group, with tangible results apparent in the new streamlined JOURNAL of 1940.

We recommend the approval of the narrative portion of the report, and the adoption of the following recommendations as redrafted by your Reference Committee:

1. The Editor's salary of $1,200 and expense account of $600, totaling $1,800 per annum, should be allowed.
2. The Editor will be permitted to name an Editorial Board of 5 members of the State Society, subject to confirmation by the Executive Committee of the Council, whom the editor may call upon for advice regarding certain scientific papers.
3. All the editorials for the MSMS JOURNAL shall be submitted to the Publication Committee or to the Executive Committee of the Council for approval before publication.

Respectfully submitted,

Finance Committee, MSMS,
by V. M. MOORE, M.D., *Chairman*
W. E. BARSTOW, M.D.
J. E. MCINTYRE, M.D.
O. D. STRYKER, M.D.

Motion of Drs. Moore-several that the report be accepted. Carried unanimously.

33. The 1940 budget was presented by Dr. Moore and studied by the Council. item by item.

Budget for 1940

(a) Medical Secretary's Salary. This was discussed generally, and motion of Drs. Holmes-Barstow that this figure be set at $3,600 for the year. Carried unanimously.

(b) Press Relations. The Council authorized the allotment of $500 from the Educational Fund for this important work. The Council agreed that additional moneys may be needed, and approved the necessity of this additional expenditure, subject to the decisions of the Executive Committee.

(c) National Conference on Medical Service. This item was explained by Secretary Foster.

(d) Postgraduate Committee. Dr. Cummings explained that with the opening of the new center at Mt. Clemens the P. G. Committee would require $2,400 for its budget. This was approved on motion of Drs. Cummings-DeGurse. Carried unanimously.

(e) Syphilis Control. Dr. Holmes voiced his objection to the decrease in allottment for the Syphilis Control Committee from $500 to $300.

Motion of Drs. Haughey-Miller that the 1940 Budget as presented and revised be approved. Carried unanimously.

M.S.M.S. BUDGET

INCOME:		
4,300 members at $12 (plus ½ and ¼ dues of new members)		$52,050.00
Interest		100.00
Miscellaneous Income		75.00
Total Income		$52,225.00
Less Allocation to THE JOURNAL at $1.50		6,506.25
Total Net Income		$ 45,718.75
APPROPRIATIONS:		
Administrative and General:		
Medical Secretary Salary	$	3,600.00
Executive Secretary Salary		7,000.00
Other Office Salaries		5,100.00
Extra Office Help		900.00
Office Rent		1,235.00
Printing, Stationery and Supplies		1,000.00
Postage		950.00
Insurance and Fidelity Bonds		190.00
Auditing		265.00
New Equipment and Repairs		300.00
Telephone and Telegraph		600.00
Miscellaneous		50.00
Total	$	21,190.00
Less Expenses Redistributed to JOURNAL	$	1,800.00
Total Admin. and General	$	19,390.00
Society Expense:		
Council Expenses	$	3,000.00
Delegates to A.M.A.		900.00
Secretaries Conferences		1,000.00
General Society Travel Expense		2,500.00
Secretary's Letters		500.00
Publication Expense		500.00
Reporting Annual Meeting		140.00
Michigan Medical Service		2,400.00
Education Expenses		2,000.00
Sundry Society Expenses		1,125.00
National Conference on Medical Service		400.00
Organizational Expense		2,175.00
Legal Expense		750.00
Woman's Auxiliary—Annual Meeting		200.00
Contingent Fund		1,993.75
Total	$	19,583.75
Less Gain from Annual Meeting	$	1,800.00
Net Society Expense	$	17,783.75
Committee Expenses:		
Legislative Committee	$	1,000.00
Distribution of Medical Care		150.00
Representatives to Joint Committee		800.00
Preventive Medicine		400.00
Cancer		600.00
Child Welfare		250.00
Iodized Salt		20.00
Heart & Degenerative Diseases		100.00
Industrial Health		200.00
Maternal Health		200.00
Mental Hygiene		100.00
Radio		25.00
Syphilis Control		300.00
Tuberculosis Control		100.00
Public Relations		1,000.00
Ethics		100.00
Membership		25.00
Advisory Committee to Woman's Auxiliary		50.00
Scientific Work Committee		100.00
Postgraduate Medical Education		2,400.00
Sundry Other Committees		325.00
Committee Reserve		300.00
Total Committee Expenses	$	8,545.00
GRAND TOTAL	$	45,718.75

34. *Budget of* THE JOURNAL for 1940 was presented by Dr. Moore.

BUDGET OF THE JOURNAL

It was explained that under Editor's Salary, the amount includes $1,200 for 1940 salary, $250 salary for Dr. Dempster for December, 1939, and $100 salary and $50 expenses to Dr. Holmes for his work in preparing the January issue of THE JOURNAL. Motion of Drs. Moore-McIntyre that the 1940 budget for THE JOURNAL be approved with this change. Carried unanimously.

BUDGET FOR THE JOURNAL, 1940

INCOME:		
Subscriptions from members	$6,506.25	
Other subscriptions	75.00	
Advertising Sales	10,000.00	
Reprint Sales	1,500.00	
Journal Cuts	125.00	
		$18,206.25
EXPENSES:		
Editor's Salary	$1,600.00	
Editor's Expense	600.00	
Printing and Mailing	9,000.00	
Cost of Reprints	1,500.00	
Allocation of administrative and general expense	1,800.00	
Discounts and commissions on advertising sales	1,600.00	
Postage	250.00	
Reserve	1,856.25	
		$18,206.25

35. *Country Gentleman Article.*—This article, "The People Demand Public Health" written in the October-December, 1939, and January, 1940 issues of *Country Gentleman* by Dr. Paul DeKruif was called to the attention of the Council by the Chairman. The January article commends the Michigan State Medical Society and its plan of group medical care—"Michigan Medical Service." Motion of Drs. Haughey-Huron that a letter of appreciation be sent to the Editor of *Country Gentleman* and to Paul DeKruif. Carried unanimously.

36. *M.S.G.H. Offer.*—Chairman Carstens reported that the Michigan Society for Group Hospitalization is offering its service to members of the MSMS shortly.

37. *MSMS Annual Meeting of 1940.*—The Council, on motion of Drs. Cummings-several, appointed Dr. Allan McDonald, Detroit, President-elect of the WCMS, as General Chairman of Local Arrangements; and Dr. C. D. Brooks, Detroit, as Chairman of the Golf Committee, in connection with the Detroit 1940 Convention. Carried unanimously.

38. *Report of Special Committee on Afflicted-Crippled Child was presented.*

REPORT OF SPECIAL COMMITTEE ON AFFLICTED-CRIPPLED CHILD

Four factors enter into the problem of the afflicted and crippled child, *vis.*:

(a) Statutes providing state aid
(b) Inadequate appropriations
(c) An unpredictable commodity (sickness)
(d) An established fee-schedule.

The Statutes were revised in 1939 and gave the Crippled Children Commission more power in the control of committments, but failed to provide funds for the employment of coördinators.

In the words of Governor Dickinson, the appropriations were too drastically cut.

Sickness being an unpredictable commodity, deficits

in appropriations may occur. The determination of the case-load is not the great problem, but the determination of what proportion of the case-load is the responsibility of the State and what part is the responsibility of the family, is the problem—in other words, the problem is one of efficient economic filtering.

In 1933, fee schedules A and C were established in conference of the Crippled Children Commission and the MSMS and were based on costs to the physician of rendering the services. Any reduction in these schedules is demanding a service at less than its cost of production. This is not done by the State in the purchase of any other commodity or service.

Any other group would refuse to render service or supply commodities on such a basis; but in the interests of public safety, physicians, as a group, cannot "strike."

The physicians of Michigan recognize only one quality of medical care—the best; and the children of Michigan, irrespective of their economic status, are entitled to this quality of medical and surgical care.

Due to the nature of medical and surgical services, no lay organization can set equitable fees for such services without consultation with the medical profession.

Should schedules A and C be reëstablished the doctors of the State of Michigan might well adopt the plan of coöperating with the State of Michigan and the Crippled Children Commission by reëstablishing the Medical Filter Board in all counties of the state—these boards to pass on medical and surgical need and urgency—providing the Crippled Children Commission will enforce the Economic Filter, free from political intrigue.

In the event that schedules A and C are not reestablished by the C.C.C., rather than accept ridiculously low fees, the physicians of Michigan might well return to their traditional right of rendering charity to the individual (not the State) whom they personally determine so deserving.

This imposition on the medical profession may persist until such a time as we have a change in the policy of the state administration or the time when it can be made a legislative issue in which the laborer is considered worthy of his hire.

Motion of Drs. Haughey-Hubbell that the report be accepted. Carried unanimously.

The question of publicity on the policy of the M.S.M.S. re this matter was discussed and motion made by Drs. Cummings-several that the Chairman of the Council, Secretary, and Executive Secretary and one additional member be appointed by the Chair, act as a Press Committee for this matter. Carried unanimously. The Chair appointed Dr. H. H. Cummings as the other member of the above committee.

ELECTIONS AND APPOINTMENTS

39. *Medical Legal Committee.*—President Corbus presented his appointments for the Medical Legal Committee for 1940 as follows: S. W. Donaldson, M.D., Chairman, Ann Arbor; E. A. Wittwer, M.D., Bay City; L. G. Christian, M.D., Lansing; Wm. J. Stapleton, Jr., M.D., Detroit; and E. O. Foss, M.D., Muskegon. Motion of Drs. McIntyre-Perkins that the appointments be approved. Carried unanimously.

40. *Election of Secretary*—L. Fernald Foster, M.D., was nominated for Secretary by Drs. Perkins-McIntyre. Motion of Drs. Huron-Holmes that the nominations be closed and the Executive Secretary be instructed to cast the unanimous ballot for Dr. Foster as Secretary. The Executive Secretary did so cast.

41. *Election of Treasurer.*—Wm. A. Hyland, M.D., was nominated by Dr. McIntyre, seconded by several. Motion of Drs. Barstow-Miller that the nominations be closed and the Secretary be instructed to cast the unanimous ballot for Dr. Hyland as Treasurer. Carried unanimously. The Secretary did so cast.

42. *Election of Editor.*—Roy Herbert Holmes, M.D., Muskegon, was nominated for Editor of THE JOURNAL by Dr. Haughey, seconded by Drs. Miller and Brunk. Motion of Drs. DeGurse-Perkins that the nominations be closed and the Secretary be instructed to cast the unanimous ballot for Dr. Holmes, as Editor. Carried unanimously. The Secretary did so cast.

43. *Resignation of Dr. Holmes as Chairman of the Publication Committee.*—Dr. Holmes presented his resignation as Chairman of the Publication Committee, which was accepted on motion of Drs. McIntyre-Sladek. Carried unanimously.

Election of Chairman of Publication Committee.—Wilfred Haughey, M.D., Battle Creek, was nominated for Chairman of the Publication Committee by Dr. McIntyre, seconded by Dr. Sladek. Motion of Drs. DeGurse-Barstow that the nominations be closed and the Secretary be instructed to cast the unanimous ballot for Dr. Haughey. Carried unanimously. The Secretary did so cast.

44. *Appointment of Executive Secretary.*—Wm. J. Burns was nominated by Dr. O. D. Stryker, seconded by Dr. McIntyre. Motion of Drs. Miller-Huron that the nominations be closed and that the Secretary be instructed to cast the unanimous ballot for Mr. Burns. Carried unanimously. The Secretary did so cast.

45. *Adjournment.*—The meeting was adjourned at 1:50 p. m., the Chair thanking all for their attendance, good advice and help and patience during the long sessions.

Doctor, have you
signed your
application for
Registration
with
Michigan Medical
Service?

No registration fee to
members of M.S.M.S.

REPORT OF AUDITORS FOR 1939

We have examined the balance sheet of the Michigan State Medical Society as of December 20, 1939, and the statements of income and expense for the fiscal year ended at that date, have reviewed the system of internal control and the accounting procedures of the Society and, without making a detailed audit of the transactions, have examined or tested accounting records of the Society and other supporting evidence, by methods and to the extent we deemed appropriate.

The Society was organized under the laws of the State of Michigan on September 17, 1910, as a corporation not for pecuniary profit. It is affiliated with the American Medical Association and charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of the public health, and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes "The Journal of the Michigan State Medical Society."

Balance Sheet

A summary of the balance sheets at December 20, 1939, and December 24, 1938, follows:

During the year, the Society was active in the promotion and formation of a group medical organization under terms of recently enacted state legislation, the organization to be known upon formal incorporation as the Michigan Medical Service. We understand that expenditures made by the Society in this connection are to be repaid by the Michigan Medical Service only from earnings of the latter organization with the permission of the State Insurance Department. The Society has also agreed (although the contract relative thereto had not been signed at December 20, 1939) to furnish working capital in the amount of $10,000.00 to the Michigan Medical Service, which amount is also to be repaid from earnings. It is anticipated that formal incorporation and the commencement of operations of the Michigan Medical Service will take place shortly after January 1, 1940. Due to the uncertainty of realizing on the advances made for organization expenses, and the advances to be made for working capital, a reserve of $16,760.68 has been provided for possible loss of the total amount.

Deferred charges as shown in the balance sheet represent costs incurred prior to December 20, 1939, in connection with advertising for the 1940 annual meeting. In accordance with established policy, such items are properly chargeable to future operations.

ASSETS	DEC. 20, 1939	DEC. 24, 1938	INCREASE DECREASE*
Cash	$13,293.22	$ 9,650.78	$ 3,642.44
Notes and accounts receivable, less reserve	1,350.94	5,274.35	3,923.41*
Securities—at cost, less reserve	28,667.50	28,779.00	111.50*
Deferred charges	88.25	117.42	29.17*
	$43,399.91	$43,821.55	$ 421.64*
LIABILITIES			
Accounts payable	$17,418.06	$ 1,284.04	$16,134.02
Liability for fund administered	—o—	39.37	39.37*
Unearned income	1,757.50	6,671.00	4,913.50*
Reserve for Medico-Legal Defense Fund	—o—	9,225.30	9,225.30*
Net worth	24,224.35	26,601.84	2,377.49*
	$43,399.91	$43,821.55	$ 421.64*

Notes receivable for dues represent the uncollected portions of notes taken in settlement of 1931, 1932 and 1933 dues. No payments were received on these notes during the year ended December 20, 1939.

Accounts receivable for advertising, reprints and cuts were analyzed as to date of charge and are classified in comparison with the balances at December 24, 1938, as follows:

DATE OF CHARGE	DECEMBER 20, 1939 Amount	DECEMBER 20, 1939 Per Cent	DECEMBER 24, 1938 Amount	DECEMBER 24, 1938 Per Cent
October, November and December	$1,221.65	84.40%	$ 946.58	73.26%
July, August and September	59.75	4.13%	198.50	15.37%
January to June, inclusive	33.17	2.29%	22.47	1.74%
Prior to January 1st	132.90	9.18%	124.45	9.63%
TOTAL	$1,447.47	100.00%	$1,292.00	100.00%

The balances due from county societies represent dues collected for the Society by two county societies and impounded in depositary banks. As funds are released by the banks, the Society's share is to be forwarded by the county societies. No payments were received during the year on these accounts.

Based upon our analysis of the notes and accounts receivable and a discussion of their collectability with employees of the Society, it is our opinion that the reserve in the amount of $325.00 is sufficient to provide for collection losses anticipated at the date of this report.

A schedule of securities owned is included in a later section of this report and sets forth the principal amount, cost and quoted market prices at December 20, 1939. Unlisted securities have been valued from information furnished by brokers as to the current bid and sale prices. During the year, bonds owned by the Society in the principal amount of $4,000.00 were called, and the proceeds were reinvested. The proceeds from the called bonds were slightly in excess of their cost to the Society. Matured coupons not cashed at December 20, 1939, have been included at face amount, but no other accrued interest has been included in the balance sheet.

Provision has been made for all known liabilities as of December 20, 1939. No provision has been made, however, for any liability the Society might have in connection with pay roll taxes for the years 1936 to 1939, inclusive.

Collections of 1940 dues and overpayments of dues for prior years have been shown as unearned income.

During the year, action was taken to eliminate the Medico-Legal Defense Fund Reserve, and by action of the Executive Committee of the Council on December 15, 1939, it was determined that cash and securities in the amount of $6,000.00 should be transferred to Wm. A. Hyland, M.D., as trustee, to provide for liability for medico-legal defense incurred to December 31, 1939, and that the balance of the Medico-Legal Defense Fund be turned in to the general assets of the Society. We have included herein a schedule which shows a summary of the changes in this reserve during the year. In the preparation of this schedule, the allocation of the $6,000.00 to the trustee and the transfer of the balance of the reserve to the net worth account of the Society has been made as of the close of the fiscal year, December 20, 1939. During the year, no

portion of the dues collected was allocated to the fund, the only receipts being interest and dividends on securities which have heretofore been classified as belonging to the Medico-Legal Defense Fund. The adjustment of the reserve to reduce securities to aggregate quoted market prices was made on the basis of prices existing immediately prior to the elimination of the fund. This adjustment resulted in a charge of $541.50 to the Medico-Legal Defense Fund Reserve. In the future, all income on securities owned by the Society, except such as might be turned over to the trustee in partial settlement of the $6,000.00 trust fund, will be credited to the income account of the Society, and any adjustments of the reserve to reduce securities to the quoted market prices will be made through the net worth account of the Society.

The increase in income from membership fees was the result of an increase in the membership of the Society.

As in prior years, $1.50 of each member's annual membership fee has been allocated to subscription income of "The Journal of the Michigan State Medical Society." The decrease in income from the JOURNAL is a result of the fact that during the latest fiscal year the JOURNAL was charged with $1,800.00 as its share of the expenses of the executive offices, whereas in preceding years no part of these expenses has been charged to the JOURNAL.

Comparative statements of income from the JOURNAL and of the expenses of the Society for the fiscal year ended December 20, 1939, and the preceding fiscal year are included herein.

Scope of Examination

The scope and nature of our examination are outlined in the following comments:

The demand and savings deposits were confirmed by correspondence with the depositary banks and by reconcilement of the balances reported by them to the amounts shown in the balance sheet. The office cash fund was counted on the morning of December 21, 1939. The totals of each of the bank deposits during three months of the year as shown in the cash receipts book were compared with the credits shown on bank statements on file, and the monthly totals of bank deposits, as shown in the cash receipts book, were compared with the monthly totals of cash receipts as recorded therein. The recorded cash disbursements for three months of the year were compared with cancelled bank checks, invoices and other memoranda. To the extent of the tests made, no irregularities were disclosed.

Notes receivable were inspected by us. Accounts receivable were in agreement with trial balances of the individual accounts. We did not correspond with any of the debtors to confirm the accuracy of the book records. The amount shown as due from the Grand Rapids Trust Company was in agreement with the records of that company.

Securities were inspected on December 20, 1939, and market quotations were obtained to ascertain their market prices at that date. Uncashed coupons at December 20, 1939, were accounted for by a receipt from the bank where they had been placed for collection which was submitted for our inspection.

We did not correspond with recorded creditors of the Society to confirm the liabilities at December 20, 1939; however, we examined unpaid invoices, expense reports, et cetera, received subsequent to that date, to ascertain that all liabilities have been provided for.

In addition to our examination of the items included in the balance sheet, we made tests of transactions entering into the income and expense accounts. Unused membership certificates were examined to check the income from dues. Interest income accrued for the year on bond investments was accounted for. Tests of advertising income were made by comparison of billings for advertising with space used in three issues of the JOURNAL. We also reviewed the items charged to the major expense accounts for the year.

Opinion

In our opinion, the accompanying balance sheet and related statements of income and expense present fairly the position of the Michigan State Medical Society at December 20, 1939, and the results of its operations for the fiscal year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

ERNST & ERNST, *Certified Public Accountants.*

BALANCE SHEET
MICHIGAN STATE MEDICAL SOCIETY
December 20, 1939

ASSETS

Cash			
Demand deposit		$ 3,172.37	
Office cash fund		3.74	
Savings deposits		10,117.11	
			$13,293.22
Notes and Accounts Receivable			
Notes receivable for dues—past due	$ 80.00		
Accounts receivable:			
For advertising, reprints, cuts, etc.	$1,447.47		
From county societies for dues	75.19	1,522.66	
		$ 1,602.66	
Less reserve		325.00	
		$ 1,277.66	
Grand Rapids Trust Company		73.28	
			$ 1,350.94
Securities			
Bonds and stock—at cost	$34,737.50		
Less reserve to reduce to aggregate quoted market prices	6,215.00	$28,522.50	
Matured coupons on bonds		145.00	
			$28,667.50
Michigan Medical Service			
Organizational expenditures made by the Michigan State Medical Society	$ 6,760.68		
Proposed advance for working capital, provided for as a liability	10,000.00	$16,760.68	
Less reserve		$16,760.68	
			—o—
Deferred Charges			
Expenses in connection with 1940 annual meeting			88.25
			$43,399.91

LIABILITIES

Accounts Payable		
For current expenses, etc.	$ 1,418.06	
To Michigan Medical Service	10,000.00	
To Wm. A. Hyland, M.D., trustee	6,000.00	
		$17,418.06
Unearned Income		
Dues for the year 1940		1,757.50
Net Worth		
Balance at December 24, 1938	$26,601.84	
Net decrease for the fiscal year ended December 20, 1939	2,377.49	
		$24,224.35
		$43,399.91

INCOME AND EXPENSE STATEMENT
MICHIGAN STATE MEDICAL SOCIETY
FISCAL YEAR ENDED DECEMBER 20, 1939

INCOME:		
Membership fees		$51,518.00
Less portion allocated to JOURNAL income for subscriptions		6,439.75
		$45,078.25
Income from JOURNAL—as shown by schedule		825.27
Interest received		763.06
Miscellaneous		84.37
Total Income		$46,750.95
EXPENSES—AS SHOWN BY SCHEDULE:		
Administrative and general		$17,368.00
Society activities		10,534.81
Committee expenses		6,873.43
		$34,776.24
Excess of Income over expenses		$11,974.71
OTHER INCOME:		
Reduction in reserve for notes and accounts receivable		$ 102.00
Profit on sale of securities		46.50
		$ 148.50
Net Income		$12,123.21
ADJUSTMENTS TO NET WORTH:		
Deductions:		
Provision for loss on organization expenses incurred for Michigan Medical Service		$ 6,760.68
Provision for loss on advances to be made to Michigan Medical Service		10,000.00
		$16,760.68
Additions:		
Reduction of reserve to reduce securities owned to quoted market prices		$ 333.75
Transfer of balance of Medico-Legal Defense Fund Reserve		1,926.23
		$ 2,259.98
		$14,500.70
Decrease in Net Worth		$ 2,377.49

INCOME FROM "THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY"
MICHIGAN STATE MEDICAL SOCIETY
Fiscal years ended December 20, 1939, and December 24, 1938

	YEAR		INCREASE
	1939	1938	DECREASE*
INCOME			
Subscriptions from members	$ 6,439.75	$ 6,151.12	$ 288.63
Other subscriptions	82.00	112.00	30.00*
Advertising	11,051.29	10,269.20	782.09
Reprint sales	1,767.43	1,857.98	90.55*
Journal cuts	263.45	166.96	96.49
	$19,603.92	$18,557.26	$ 1,046.66
EXPESNSES			
Editor's salary	$ 2,750.00	$ 3,000.00	$ 250.00*
Editor's expense	50.00	600.00	550.00*
Printing and mailing	10,567.66	10,144.90	422.76
Cost of reprints	1,367.95	1,423.21	55.26*
Discounts and commissions on advertising	—o—	1,196.17	796.87
Postage	250.00	250.00	—o—
Allocation of administrative and general office expenses	1,800.00	—o—	1,800.00
	$18,778.65	$16,614.28	$ 2,164.37
Net Income	$ 825.27	$ 1,942.98	$ 1,117.71*

EXPENSES
MICHIGAN STATE MEDICAL SOCIETY
Fiscal years ended December 20, 1939, and December 24, 1938

	YEAR		INCREASE
	1939	1938	DECREASE*
ADMINISTRATIVE AND GENERAL			
Secretary's salary	$ 2,400.00	$ 2,400.00	$ —o—
Executive secretary's salary	7,000.00	6,000.00	1,000.00
Other office salaries	5,351.75	4,000.05	1,351.70
Office rent	1,042.50	720.00	322.50
Printing, stationery and supplies	1,190.32	989.91	200.41
Postage	846.87	738.02	108.85
Auditing	265.00	250.00	15.00
Insurance and fidelity bonds	187.10	190.77	3.67*
Telephone and telegraph	598.60	460.55	138.05
Legal expense	—o—	35.00	35.00*
New equipment	263.84	994.78	730.94*
Unclassified	22.02	170.18	148.16*
	$19,168.00	$16,949.26	$ 2,218.74
Less expense redistributed to "Journal"	1,800.00	—o—	1,800.00
	$17,368.00	$16,949.26	$ 418.74

SOCIETY ACTIVITIES			
Council expenses	$ 2,508.57	$ 3,012.50	$ 503.93*
Educational fund	3,000.00	–o–	3,000.00
Delegates to American Medical Association	618.78	1,675.56	1,056.78*
Secretaries' conference	1,231.13	740.61	490.52
Secretary's letters	423.24	523.28	100.04*
Traveling	2,849.51	2,218.63	630.88
Legal expense	157.50	–o–	157.50
Reporting annual meeting	136.61	130.39	6.22
Publications	346.67	18.90	327.77
Michigan Medical Service	263.73	–o–	263.73
Sundry society expense	1,103.30	849.97	253.33
	$12,639.04	$ 9,169.84	$ 3,469.20
Less revenue from annual meeting in excess of cost thereof	2,104.23	1,514.44	589.79
	$10,534.81	$ 7,655.40	$ 2,879.41

EXPENSES—CONTINUED

	YEAR		INCREASE
	1939	1938	DECREASE*
COMMITTEE EXPENSES			
Legislation committee	$ 1,325.60	$ 775.29	$ 550.31
Committee on distribution of medical care	113.22	676.12	562.90*
Contribution to Joint Committee on Public Health Education	500.00	875.00	375.00*
Cancer committee	598.42	802.95	204.53*
Contribution to Michigan Infantile Paralysis Commission	1,000.00	–o–	1,000.00
Preventive medicine committee	204.01	119.51	84.50
Postgraduate conferences	2,022.26	1,328.80	693.46
Public relations committee	225.43	509.10	283.67*
Advisory committee on women's auxiliary	234.50	110.74	123.76
Advisory committee on syphilis control	226.54	93.10	133.44
Committee reorganization expense	–o–	31.75	133.87
Maternal welfare committee	165.62	150.10	150.10*
Iodized salt committee	–o–	286.25	286.25*
Ethics committee	–o–	42.72	42.72*
Sundry other committees	257.83	334.14	76.31*
	$ 6,873.43	$ 6,135.57	$ 737.86
Total	$34,776.24	$30,740.23	$ 4,036.01

IF YOU DISPENSE, READ THIS

Physicians who dispense their own drugs must comply with the provisions of the Federal Food, Drug and Cosmetic Act, particularly Section 502-b. This section provides that a drug or device shall be deemed misbranded "If in package form unless it bears a label (1) showing name, place of business of manufacturer, packer or distributor; (2) an accurate statement of the quantity of the contents in terms of weight, measure, or numerical count, reasonable variation permitted."

As the law is written, it applies to physicians who dispense their own drugs, as well as to pharmaceutical houses, pharmacists, drug stores, or anyone who manufactures or distributes drugs. The physician (and the drug store or pharmacist) is exempt from these labeling provisions, *only* IF he writes a prescription and sends the patient to the druggist for the medicine.

Other parts of Section 502 are also of interest to physicians, such as Part D re labeling of narcotic drugs as "habit forming" unless on written prescription which is marked unrefillable; Part E requiring the common or usual name of the drug, if one, to be written on the label; or the names of the active ingredients giving the proportion or quantity of bromides, ether, chloroform, acetanilid, acetphenetidin, amidopyrine, antipyrine, atrophine, hyoscine, hyoscyamine, arsenic, digitalis, digitalis glucosides, mercury, ouabain, strophanthin, strychnine, thyroid, or any derivatives of such substances, UNLESS given in a written prescription: Part F requiring adequate directions for use.

The aim of the law, of course, is to eliminate "counter prescribing" by drug stores and harmful self-medication with highly potent and often dangerous drugs. It is not known just how strenuously the Federal Food, Drug and Cosmetic Administration will require physicians who dispense to adhere to this particular portion of the law, but it is a federal statute and should be complied with.

NATIONAL CONFERENCE ON MEDICAL SERVICE

PALMER HOUSE, CHICAGO, SUNDAY, FEBRUARY 11, 1940

YOUR ARE INVITED

PROGRAM ON PAGE 125

Now

A WIDELY EMPLOYED MERCURIAL DIURETIC *in improved form*

Excellent for
INTRAMUSCULAR
and
INTRAVENOUS INJECTION



IT has been conclusively proved that the association of theophylline with a mercurial diuretic greatly enhances the local tolerance to the mercurial component. After intramuscular administration, the mercury component is absorbed more rapidly and completely from the site of injection, the rate of excretion is proportionately increased, and the diuretic effect is more prompt and more pronounced than when the mercurial alone is administered.

Salyrgan-Theophylline (10 per cent of Salyrgan* with 5 per cent of theophylline in solution) is absorbed quickly (97 per cent within an hour) and entirely from muscle tissue. As a result local soreness and pain are greatly reduced in intensity or not experienced at all.

Write for booklet describing Salyrgan-Theophylline, including discussion of dosage, directions for use and contraindications and side effects.

* Mercury salicylallylamide-o-acetate of sodium.

HOW SUPPLIED: Salyrgan-Theophylline solution is supplied in ampules of 1 cc., boxes of 5 and 25; and ampules of 2 cc., boxes of 10 and 25.

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

HEALTH OF THE STATE IN 1939

The Michigan Department of Health at the close of 1939 looks back on a year of gains and improvements in the health of the state, and forward to the problem of organizing community health services in rural areas not yet afforded such protection.

The past year was the safest in the state's history in which to be born. New low records were set in infant and maternal mortality.

New preventive and control measures for certain communicable diseases were put into general use during 1939. New studies and experimental work were begun for others.

Three new counties established county health departments during the year, bringing the number of organized counties to 61. Twenty-two counties still do not provide full time local health service for their residents.

BIRTH AND DEATH RATES

Encouraging Statistics

Based on provisional statistics for the first ten months of 1939, the new low record for infant deaths is 41.7 per 1,000 births. The new figure eclipsed a record set the year before at 44.54 deaths per 1,000 births. Before 1938, the next best record for the state was 47.71 in 1935. For 10 months, the 1939 record means that 309 fewer babies died than in 1938.

There was a decrease in maternal deaths, which is viewed as equally note-worthy. In 1939, the maternal mortality was 3.1 per 1,000 births, a figure just half that of ten years ago. The 1938 rate was 3.56.

In 1940, the Department plans to make available at several centers in the state, incubators for the care of premature infants. More than 1,400 babies died last year because they were born prematurely. Premature birth is the largest single cause of death among infants.

Heart disease, cancer, nephritis and diabetes largely account for a rise in the general death rate in 1939 from 9.9 to 10.2 per 1,000 persons. But children born today can expect to live an average of ten years longer than those born only a generation ago.

Births declined in 1939 to 18.4 per 1,000 population as compared with 19.3 per 1,000 in 1938. This may be partly explained by the drop in the number of marriages the year before. Marriages increased 23 per cent in 1939, so that the 1940 birth rate may be expected to overcome the drop of this year.

Advances

This fall, the Health Department started free distribution to physicians of its new pertussis vaccine. The new vaccine has proved effective in nearly four years of field testing.

Against another communicable disease—pneumonia—the state is waging a general campaign. With the aid of two new weapons, antipneumococcic serum and sulfapyridine, physicians believe that the pneumonia death rate may be reduced 50 per cent or more.

During the year, the Health Department laboratories responded to a 25 per cent increase in demand for services to health officers and doctors. Examinations of more than 500,000 specimens were made. About 200,000 were blood tests for syphilis. A new branch laboratory was established at Powers to serve the eastern end of the Upper Peninsula.

A rural sanitation law was passed by the 1939 legislature, and as a result an attack is being made on conditions which may cause typhoid, diarrhea and dysentery in rural and resort areas.

One of the least publicized but most important public health gains during 1939 is the improvement of public water supplies. Due to municipal construction during the year, every community in the state of over 1,000 population has a public water supply.

EDUCATION

Education in public health matters has continued as a basic policy of the Health Department. The Department has helped to sponsor training on the job for public health personnel, postgraduate and consulting opportunities for doctors and dentists, and health information for the public. More than a million health pamphlets annually go to Michigan readers. Last year 125,000 persons attended health lectures, child care classes and women's classes sponsored in 74 counties.

The combination of a "health conscious" public aroused to personal and community health needs, plus capable medical and public health workers has proved an effective answer to the challenge of the preventable diseases.

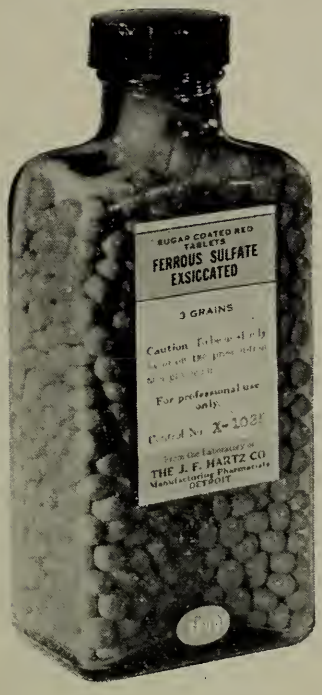
AUTOPSY MATERIAL REQUIRED FROM SUSPECTED RABIES CASES

"Whenever a suspected case of human rabies comes to autopsy, the person making the autopsy shall be responsible for immediately transferring a portion of the brain and spinal cord to the State Laboratories in Lansing for pathological examination and animal inoculation. A history of the case shall accompany the specimen."

"True health security," said Dr. Peter Irving of New York City, secretary and general manager of the New York Medical Society, "exists in the ability of the medical profession to pass over to the public new scientific knowledge. Last year there were lectures in seventeen counties, spreading postgraduate education to physicians who do not live near teaching centers, in addition to the regular scientific sessions of county societies and at the annual state society meeting. Other organizations are working toward the same end. In this state the public can get all the medical care they need and it is of the best quality."—From *Medical News,* Medical Society of the State of New York.

Citrus fruits are a healthful natural food, supplementing and repairing the deficiencies of the usual American diet which is notoriously poor in vitamins and mineral salts. Therefore any dietary habit which will increase the consumption of these valuable fruits should benefit the public health. Counsel to augment the customary intake of fruit by the addition of grapefruit and tangerines to the diet should help to raise the "ill-fed third" of the population to the "minimum" protective level of vitamin and mineral intake, and to increase the intake of the better-fed to that "optimum" level which is requisite for buoyant and abounding health.—Florida Citrus Commission.

FERROUS SULFATE EXSICCATED TABLETS

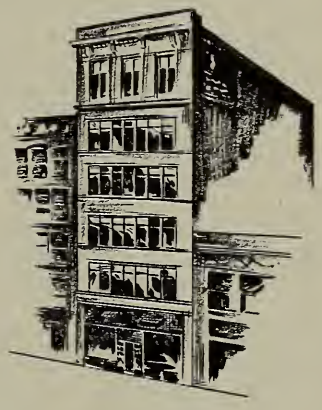


Recent investigation has revealed **Ferrous Sulfate, Exsiccated** as a highly effective form of iron for use in hemoglobin formation. (It is said to be about 8 to 10 times as effective as Iron & Ammonium Citrate.)

Because **iron** is absorbed chiefly in the duodenum and possibly in the stomach, this tablet is coated—but **not** enteric coated. It is available as **Ferrous Sulfate,** Exsiccated 3 grain tablets at $2.00 per M.

Indicated for: Secondary Anemia
Chlorosis
Iron Deficiency

Dosage: 1 to 2 tablets T. I. D., preferably immediately after meals.



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Woman's Auxiliary

BRIEFS

Bay County: Meeting of December 15 was held at the home of Mrs. A. D. Allen, president, with thirty-seven members present. Speaker: Miss Libby Kessler, who reviewed "Dr. Hudson's Secret Journal."

Gratiot-Isabella-Clare County: Joint meeting of the medical society and its Woman's Auxiliary was held at the Wright Hotel, Alma, on December 21, with ninety present. Wm. J. Burns, Executive Secretary, Michigan State Medical Society, spoke on "Opportunities for the Doctor's Wife."

Ingham County: At the January 15 meeting, Wm. J. Burns, Executive Secretary of the State Society, discussed "Michigan Medical Service."

Jackson County: The Auxiliary members were guests of the County Medical Society on December 15, with 120 members present. The dinner-dance was in charge of Dr. and Mrs. John Ludwick, Dr. and Mrs. C. D. Munro, Dr. and Mrs. Grant Otis, Dr. and Mrs. Rex Bullen, Dr. and Mrs. Dean Smith, and Dr. and Mrs. R. H. Alter.

Kalamazoo County: The Auxiliary was guest of the Kalamazoo Academy of Medicine at a Christmas party at the Park American Hotel, December 19. One hundred twelve were present. Dr. Paul W. Harrison, the "Desert Doctor," spoke of "Medical Experiences in Arabia."

Lapeer County: Forty members of the medical society and the Woman's Auxiliary were guests of Dr. and Mrs. J. O. Thomas at dinner on December 3. A business meeting was held after the dinner.

Oakland County: Members were entertained November 17 at a coöperative luncheon at the home of the president, Mrs. Harry B. Yoh, at Clarkston. Plans were made for entertaining the husbands of the members at an informal dinner-dance in January.

Saginaw County: Forty members attended a luncheon meeting at the home of Mrs. S. A. Sheldon, Saginaw. Members voted to contribute to the purchase of an iron lung, and to send *Hygeia* to twenty rural schools and the First Ward Community Center. Mrs. Milton G. Butler was general chairman for the meeting. Husbands will be invited to the next meeting.

Washtenaw County: The December meeting was held at the home of Mrs. Max Peet. The January 9 meeting was a hobby show at the home of Mrs. S. L. LaFever.

Wayne County: The November meeting was held in the club house on November 10. Dr. Nathan Sinai, of the University of Michigan, spoke on "Highways and Horizons of Medicine in This Changing World." The lecture was followed by a most enjoyable tea hour. The Wagner Health Bill, medicine in foreign countries, and the future of American medicine will be discussed at following meetings.

Sixty new members of the Auxiliary were introduced by Mrs. Charles Barone, Chairman of the Membership Committee, at a musical tea in the Wayne County Medical Society headquarters on December 8. Speakers were Drs. J. Milton Robb and Edward D. Spalding on "The Wagner Health Bill."

The Annual Children's Christmas Party was held at the W.C.M.S. headquarters on December 16, the main feature being a puppet show for the children and a visit from Santa Claus.

SCHIZOPHRENIA

(Continued from page 117)

sympathetic nervous system disorder known to be present in schizophrenia.

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Mississippi Valley Medical Society

The sixth annual meeting of the Mississippi Valley Medical Society will be held at the Hotel Fort Armstrong, Rock Island, Illinois, September 25, 26, 27, 1940. Dr. James Gray Carr, A.B., M.D., F.A.C.P., of Chicago, Secretary and Professor of Medicine, Northwestern University School of Medicine, was awarded the Mississippi Valley Medical Society's Distinguished Service Award for 1939, for "unusual and distinguished service to the medical profession."

"This is recognition of his innate sincerity, his deep understanding of medical problems, his kindly ministrations with a fine basic personality."

Farm Security

The Farm Security administration recently issued the following report pertaining to F.S.A. Medical plans now operating in Kansas:

Total Number of Families Included	1,884
Total Number of Persons Included	10,646
Amount Paid for Physicians Services during October	$3,655.86
Amount Paid on Drugs Furnished during October	761.47
Amount Paid to Hospitals during October	602.58
Amount Paid to Dentists during October	499.54

—*Journal of Kansas Medical Society,* (Jan. 1940)

Ferguson-Droste-Ferguson Sanitarium

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Doctor—here's how wholesome Chewing Gum *helps build good will for you*

Every doctor knows the importance of ending up a consultation in a friendly, cheerful way.

Many doctors know how helpful it is to have on hand a supply of wholesome, delicious Chewing Gum to offer patients when saying "good-bye." This inexpensive enjoyment sends them away with a good taste in their mouths!

Aside from good-will value, as you know, chewing exercises the teeth, helps cleanse and brighten them and is a refreshing pleasure. Try it, doctor.

The National Association of Chewing Gum Manufacturers, Rosebank, Staten Island, New York

✶ COUNTY AND PERSONAL ACTIVITIES ✶

Physicians' Federal Income Tax—1940, is thoroughly explained in the *Journal of the American Medical Association* for January 20, page 254.

* * *

W. A. Altemeier, M.D., and H. C. Jones, M.D., of Detroit, were co-authors of "Experimental Peritonitis" which appeared in the January 6 issue of *The Journal of the American Medical Association.*

* * *

State Health Commissioner H. Allen Moyer announces the appointment of Carleton Dean, M.D., formerly of Charlevoix, as Deputy Commissioner, in Charge of Bureau of Local Health Services, to fill the vacancy left by the resignation of Albert McCown, M.D., as of January 1, 1940. Congratulations, Doctor Dean!

* * *

The Board of Trustees of Butterworth Hospital, Grand Rapids, announce the appointment of the following officers for 1940-41: Chief of Staff, Leland M. McKinlay, M.D., Vice Chief, Leon C. Bosch, M.D., Chief of Medicine, Abel J. Baker, M.D., Chief of Surgery, G. Howard Southwick, M.D., Chief of Obstetrics and Gynecology, Harrison S. Collisi, M.D., Chief of Pediatrics, L. J. Schermerhorn, M.D., and Chief of Eye, Ear, Nose and Throat, Henry H. Blackburn, M.D.

* * *

The War Department has announced an examination March 18 to 22, inclusive, for the purpose of qualifying candidates for appointment as First Lieutenants in the Medical Corps, Regular Army, to fill vacancies occurring during the remainder of the present fiscal year. Due to expansion of the Air Corps and Coast Defenses, there will be considerably more than the usual number of vacancies. Full information and application blanks will be furnished upon request addressed to The Adjutant General, War Department, Washington, D. C., and received before March 2, 1940.

* * *

The Michigan Pathological Society held its annual meeting at the University Hospital on December 9, 1939. The afternoon was devoted to demonstrations in the pathological laboratories of the Hospital. The following were elected to office in the Society for the coming year: W. L. Brosius, M.D., President, Detroit; J. A. Kasper, M.D., President-Elect, Detroit; D. C. Beaver, M.D., Secretary-Treasurer, Detroit; O. A. Brines, M.D., Detroit, and G. L. Bond, M.D., Grand Rapids, Councilors. O. W. Lohr, M.D., Saginaw, is the retiring president.

* * *

The staff of the Mount Carmel Mercy Hospital of Detroit held its Annual Clinic Day and Banquet in Detroit on Wednesday, January 31. Speakers and topics were as follows: O. R. Yoder, M.D., Ypsilanti, "Management of the Neurotic Patient in Private Practice"; E. L. Sevringhaus, M.D., Madison, Wis., R. L. Schaefer, M.D., and Robert C. Moehlig, M.D., Detroit, round table discussion on "Adaptation of Glandular Therapy by General Practitioner"; S. D. Kramer, M.D., Brooklyn, "Virus Diseases in Everyday Practice"; Frank Riggall, M.D., of Arkansas, "Pre-operative and Post-operative Management of Biliary Disease"; Norman F. Miller, M.D., Ann Arbor, "Obstetrics in General Practice."

Louis J. Gariepy, M.D., Detroit, was Toastmaster at the dinner, Statler Hotel. Speakers at the banquet included Ralph H. Pino, M.D., President of the Wayne County Medical Society; and Stanley W. Insley, M.D., Chairman of the Program Committee. The main address was given by Rev. Father Charles E. Coughlin, who spoke on the subject "Government Medical Care—How Far Should It Go?"

HAVE YOU MOVED?

It is important that the mailing list of THE JOURNAL of the Michigan State Medical Society be kept up to date and accurate. Members are invited to help us in this work. When and if you change your mailing address, please drop a card to THE JOURNAL, giving your new address. If you would like to have your copy of THE JOURNAL sent to your home instead of your office (or vice versa), write the Executive Office, 2020 Olds Tower, Lansing. Please submit changes in address promptly to assist THE JOURNAL in avoiding delay in making mailing list revisions. We desire to have THE JOURNAL reach you each month without delay.

The following Health Talks were released for broadcast over radio station CKLW during January:

January 5, 1940, 7:30 p. m. "Preservation of Good Health" by Wm. J. Stapleton, Jr., M.D., Detroit.

January 12, 1940, 7:30 p. m. "Diseases of the Liver and Gall-Bladder" by Charles E. Lemmon, M.D., Detroit.

January 19, 1940, 7:30 p. m. "Appendicitis" by Clifford D. Benson, M.D., Detroit.

January 26, 1940, 7:30 p. m. "Scarlet Fever" by Edward A. Wishropp, M.D., Detroit.

February 2, 1940, 7:30 p. m. "Child Spacing and Its Relation to the Mother's Health" by Harold Mack, M.D., Detroit.

* * *

Doctor, remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten more of the firms which helped make the 1939 Convention such a great success:

Gilbert Specialties Company, Michigan City, Ind.
Hack Shoe Company, Detroit
Hanovia Chemical & Mfg. Company, Newark
J. F. Hartz Company, Detroit
H. J. Heinz Company, Pittsburgh
High Tension Electric Company, New York
Holland-Rantos Company, New York
Horlick's Malted Milk Corporation, Racine
G. A. Ingram Company, Detroit
Jones Metabolism Equipment Company, Chicago

* * *

Ophthalmologists, Attention! Beware of a man who is travelling around the country purchasing glasses, especially from oculists, usually offering for same a check in the amount of $30.00. He usually endorses the check in a very rough, plainly legible hand and signs it "W. C. Curran"; he always asks for the difference between the amount of the check and the price of the glasses *in cash* (but he does not call for the spectacles).

This man simulates a farmer and usually has on the check a notation about cows, corn, hogs, etc. He is about 5 feet 9 to 10 inches tall, weighs about 155 pounds, has light sandy hair, blue eyes, is smooth

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$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $33.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $66.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $99.00 per year

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*Trade Mark Reg. U. S. Pat. Off. Word "Coramine" identifies the product as the diethyl amide of nicotinic acid of Ciba's manufacture.

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shaven with a ruddy complexion, and is approximately 49 years old.

The complaint concerning this man has been received from Herbert D. Kimberlin, M.D., Trenton Trust Building, Trenton, Missouri, in behalf of himself and Dr. R. C. Pearson of Maryville, Mo. Please inform these physicians at once (telegraph collect) or the sheriff of Nodaway County, or Grundy County, Missouri, if "W. C. Curran" calls on you.

* * *

COUNCIL AND COMMITTEE MEETINGS

Thursday, December 28—Syphilis Control Committee—Statler Hotel, Detroit—5:00 p. m.

Wednesday, January 3—Public Relations Committee—Porter Hotel, Lansing—3:00 p. m.

Friday, January 12—Cancer Committee—Woman's League Bldg., Ann Arbor—6:30 p. m.

Friday, January 12—Finance Committee of The Council—Statler Hotel, Detroit—7:00 p. m.

Saturday, January 13—County Societies Committee of The Council—Statler Hotel, Detroit—8:00 a. m.

Saturday, January 13—Publication Committee of The Council—Statler Hotel, Detroit—8:00 a. m.

Saturday, January 13 and Sunday, January 14—10:00 a. m., Midwinter Meeting of The Council, Hotel Statler, Detroit.

Wednesday, January 17—Child Welfare Committee—State School for Deaf, Flint—12:15 p. m.

Friday, January 19—Maternal Health Committee—Statler Hotel, Detroit—12:15 p. m.

Wednesday, February 7—Syphilis Control Committee—Hotel Olds, Lansing—5:00 p. m.

* * *

COUNTY MEDICAL SOCIETY MEETINGS

Alpena County—September—Speakers: Mr. Adolph "Germany" Shultz and Mr. Leo Ford. October—Speaker: Clifford H. Keene, M.D., of Ann Arbor. November—Speakers: Richard Freyberg, M.D., and John Sheldon, M.D., of Ann Arbor. December—Speakers: J. T. Jerome, M.D., and Mark Osterlin, M.D., of Traverse City.

Calhoun County—January 2—Battle Creek—Speaker: David Steel, M.D., Cleveland.

Dickinson-Iron—January 11—Iron Mountain—Speaker: Wm. S. Jones, M.D., Menominee. Guests: Judges of Probate, Welfare Directors and Health Committees of the Boards of Supervisors from Dickinson and Iron Counties.

Eaton County—December 14—Charlotte—Speaker: Cyrus Sturgis, M.D., Ann Arbor.

Gratiot-Isabella-Clare—January 18—Alma — Speaker: Hewitt Smith, M.D., Lansing.

Ingham County—January 16—Lansing—Speaker: Mr. Ben East of Grand Rapids.

Ionia-Montcalm—January 9—Stanton—Speaker: A. J. Baker, M.D., Grand Rapids.

Jackson and Hillsdale Counties—January 16—Jackson—Speakers: Henry R. Carstens, M.D., Detroit; L. Fernald Foster, M.D., Bay City; Wm. J. Burns and J. D. Laux of Lansing,

Kalamazoo County — December 19 — Kalamazoo — Speaker: Paul Harrison, M.D., Kalamazoo. January 16—Kalamazoo—Speaker: Russell D. Herrold, M.D., Chicago.

Kent County—January 10—Grand Rapids—Speakers: Gordon W. Balyeat, M.D., R. J. Hutchinson, M.D., and Jay Venema, M.D., of Grand Rapids.

St. Clair County—December 26—St. Clair—Annual Meeting, Speaker: Jesse Wolcott, Member of Congress. January 23—Port Huron—Speaker: F. E. Schmidt, M.D., Chicago.

Shiawassee County — January 18 — Owosso — Joint meeting with pharmacists of Shiawassee County.

Wayne County—December 18—Detroit—C. A. Mills,

M.D., Cincinnati. January 8—Detroit—M. A. Blankenhorn, M.D., Cincinnati. January 15—Detroit—W. F. Braasch, M.D., Rochester, Minn. January 22—Detroit—Fred W. Rankin, M.D., Lexington, Kentucky. January 29—Detroit—E. L. Sevringhaus, M.D., Madison.

West Side Medical Society (Detroit)—January 18—Detroit—Speakers: Robert L. Schaefer, M.D., A. J. Lehman, M.D., and P. F. Morse, M.D.

Michigan Society of Neurology and Psychiatry—January 11—Detroit—Speakers: Theophil Klingman, M.D., Ann Arbor; John M. Dorsey, M.D., Detroit, Lowell S. Selling, M.D., Detroit; and Milton H. Erickson, M.D., Eloise.

"State Society Nights" were held by Oakland County on January 22 and by Macomb County on February 5 at which "Michigan Medical Service" was thoroughly explained by officers of the Michigan State Medical Society. Among the MSMS officers who attended were Henry R. Carstens, M.D., Detroit; L. Fernald Foster, M.D., Bay City; Executive Secretary Wm. J. Burns, and Mr. J. D. Laux of Michigan Medical Service. The meetings were arranged by H. L. Morris, M.D., Detroit, member of the Public Relations Committee.

* * *

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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IN MEMORIAM

W. H. Ditmars, M.D.

W. H. Ditmars, of Jonesville, Michigan. Born in North Adams, November 28, 1873. Attended Hillsdale College. Later he taught school. In June, 1897, graduated from the Detroit College of Medicine. Spent his entire professional life in Jonesville. Died at the age of sixty-six years.

Charles E. Greene, M.D.

Charles E. Greene, of Owosso, Michigan, born near Sand Lake, Rensselaer county, N. Y., May 8, 1860. Attended State Normal College at Albany, N. Y., University of Michigan Medical School and Long Island College Hospital. M.D. 1890. Practiced in Riley Center, St. Clair county, for fifteen years and then at Richmond, Michigan, for ten years. Died at the age of seventy-nine from pericolitis and chronic inflammatory diverticulitis of the colon. As a State Senator from 1925 to 1929 he was chairman of the Public Health Committee and a fine exponent of intelligent health measures. He was the father of Dr. I. W. Greene of Owosso, who has been very prominent in the Michigan State Medical Society.

John E. Handy, M.D.

John E. Handy, of Caro, Michigan. Born in Mountbridge, Ontario, September 23, 1858. Graduated from the Detroit College of Medicine 1887. Started practicing in Watrousville. Transferred his office to Caro in 1906 and continued to practice there until his death. Was elected Emeritus Member of the Michigan State Medical Society in 1937. Doctor Handy was the dean of the medical profession of Tuscola County, at the time of his death. He was appointed by Governor Comstock to the State Board of Registration in Medicine, a position which he held for three years, resigning in 1936. Died at the age of eighty-one years from a heart attack.

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All soldiers in France are now required by law to be given antitetanus immunization. The immunity varies considerably. It may drop to a minimum level within ninety days after the second injection or retain a high level over a period of years. This basal immunity, which is probably lifelong, is rapidly and markedly accelerated at any time with an injection of toxoid.

Rogers (Bull. New York Acad. Med., 15:553, August, 1939) has suggested that active tetanus immunization should be given to those who are sensitive to horse serum, to asthmatic patients and other allergic individuals if they are in occupations or indulge in avocations which carry with them danger of injury. He includes in an optional group children, especially those living in the country or those who ride, and nonallergic individuals engaged in hazardous occupations or avocations.

Tetanus Toxoid, Alum Precipitated, Lilly, is supplied in packages for single and multiple immunizations. Simultaneous immunization to diphtheria may be accomplished by using Diphtheria Toxoid-Tetanus Toxoid Combined, Alum Precipitated, Lilly.

PSYCHOLOGICAL ASPECTS OF COD LIVER OIL ADMINISTRATION

Some authorities recommend that cod liver oil be given in the morning and at bedtime when the stomach is empty, while others prefer to give it after meals in order not to retard gastric secretion. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she administers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. It is most important that the mother administer the oil in a matter-of-fact manner, without apology or expression of sympathy.

If given cold, cod liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silverplated spoon (particularly if the plating is worn), a glass spoon has an advantage.

On account of its higher potency in Vitamins A and D, Mead's Cod Liver Oil Fortified with Percomorph Liver Oil may be given in one-third the ordinary cod liver oil dosage, and is particularly desirable in cases of fat intolerance.

STUDY OF FILTERABLE VIRUS DISEASES

Establishment of a new laboratory for the study of filterable virus diseases, in the treatment and prevention of which science is believed to be at the threshold of an important advance, is announced by the Squibb Biological Laboratories.

Dr. Raymond C. Parker, biologist of the Rockefeller Institute for Medical Research, has been appointed to head the laboratory, which will operate as a unit of the Biological Division of E. R. Squibb and Sons at New Brunswick, N. J. The new building is a continuation of a program of expansion which began in the fall of 1938 with the dedication to pure science of the $750,000 laboratory of the Squibb Institute for Medical Research.

Among the common diseases caused by filterable viruses, to be studied, Dr. Anderson pointed out, are smallpox, rabies, equine encephalitis, measles, chicken pox, poliomyelitis, and the common cold. No specific product for the prevention of four of these diseases—the common cold, poliomyelitis, chicken-pox, and measles—is now available.

"Who's Who in the Hack Organization" is the subject of a new series of advertisements commencing this month in THE JOURNAL of the Michigan State Medical Society.

An old and tried friend of the Michigan State Medical Society, the Hack Shoe Company, each month will present a brief biographic sketch of a different member of its staff. Drawn from the viewpoint of the individual's shoe fitting experience, the series is designed better to acquaint the doctors with the people to whom they entrust the fitting of their patients' feet.

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Hack shoes were exhibited at the 1940 meeting of the American Academy of Orthopædic Surgeons in Boston, January 22 to 25.

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MEDICOLEGAL AND INDUSTRIAL TOXICOLOGY. Criminal Investigation. Occupational Diseases. By Henry J. Eilmann, Ph.D., Director of Physicians' Laboratory Service of Toledo, Ohio; Lecturer in Bacteriology and Histology, Mary Manse College of Toledo. Published by The Blakiston Company, Philadelphia. Price $3.00.

The author considers each industrially used or commonly found drug or chemical and discusses its uses, symptoms of poisoning from it, and means of detecting such poisons as well as suggestions for treatment of the resulting injury. A short but very well written section on criminal investigation of this type of poisoning is included. Then in a very brief manner he discusses medicolegal examinations of miscellaneous natures from death caused by gases, food poisonings and physical means.

LANE MEDICAL LECTURES: Viruses and Virus Diseases. By Thomas M. Rivers, M.D., Sc.D., Director, Hospital of The Rockefeller Institute for Medical Research, New York City. Stanford University Publications, University Series, Medical Sciences, Volume IV, Number I. Published by Stanford University Press, Stanford University, California. London: Humphrey Milford, Oxford University Press. Price: Cloth $2.50; Paper $1.75.

Thomas M. Rivers, M.D., of the Rockefeller Institute, has joined the list of medical greats who have delivered the Lane Medical Lectures at Stanford University. These are compiled into a monograph under the above title and provide a complete illuminating discussion of the theoretical and the practical side of virus disease. It is unfortunate that the quality of the paper used does not show off to the best advantage the beautiful photomicrographs which illustrate the text. Such a review of a class of infections which is becoming more and more prominent in the practice of medicine is well worth reading.

DISEASES OF THE EAR, NOSE AND THROAT. Principles and Practice of Otorhinolaryngology. By Francis L. Lederer, B.Sc., M.D., F.A.C.S., Professor and Head of the Department of Laryngology, Rhinology and Otology, University of Illinois College of Medicine, Chicago; Chief of the Otolaryngological Service, Research and Educational Hospital. Second Revised Edition. Illustrated with 765 Halftone and Line Engravings on 463 Figures and 16 Full-page Color Plates. Published by F. A. Davis Company, Philadelphia. Price $10.00.

The arrangement in columns in this book makes it very easy reading. It is essentially a text in diagnosis of these diseases containing many illustrations, a number of which are in color. It clarifies in the mind, the anatomy of the regions considered. An excellent continuity of etiology and symptomatology combined with the above mentioned advantages makes it a completely worthwhile text. The section on treatment is not as complete as the diagnostic section.

MATERIA MEDICA, Drug Administration and Prescription Writing. By Oscar W. Bethea, M.D., Ph.G., Ph.M., F.C.S., F.A.C.P., Professor of Clinical Medicine, Tulane School of Medicine; Professor of Therapeutics, Tulane Graduate School of Medicine; Senior Physician, Southern Baptist Hospital (New Orleans); Senior Visiting Physician, Charity Hospital of Louisiana; Member Revision Committee U. S. Pharmacopœia, Etc. Fifth Revised Edition. Published by F. A. Davis Company, Philadelphia, 1939. Price $5.00.

A new edition has been made to conform with the new Pharmacopœia and National Formulary. There has been an addition of much new material and many changes in the text. Essential information regarding the drugs which the practitioner would be likely to



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use in writing a prescription are discussed in a concise, informative manner. Included by the author, are the common prescriptions including these drugs and the uses for which they are indicated. A very fine section on the art of writing prescriptions is an essential part of the book. It is a very complete volume. Many tables, lists, and examples are included. The clinical index is also a valuable part of the book. In order to bring it up to the minute a supplement is included of the newest accepted remedies.

PRACTICAL OBSTETRICS. By P. Brooke Bland, M.D., Emeritus Professor of Obstetrics, Jefferson Medical College; Consulting Obstetrician, Jefferson Medical College Hospital, Philadelphia, Pa.: and Thaddeus L. Montgomery, M.D., Clinical Professor of Obstetrics, Jefferson Medical College, Philadelphia, Pa. Third Revised Edition. Illustrated with 502 Engravings including 27 Colored Plates. Published by F. A. Davis Company, Philadelphia, 1939. Price $8.00.

This third edition of Drs. Bland and Montgomery's "Practical Obstetrics" is outstanding for the numerous cuts and especially for the splendid colored plates. With 502 pictures it provides an easily read textbook in obstetrics for the practitioner. The many practical points included make it valuable for general use.

GYNECOLOGY. Medical and Surgical. By P. Brooke Bland, M.D., F.A.C.S., Professor Emeritus of Obstetrics, The Jefferson Medical College, Philadelphia; Consulting Obstetrician to the Jefferson Medical College Hospital, Philadelphia; Consulting Obstetrician to the Philadelphia Lying-In Hospital; Formerly Associate Professor of Gynecology in The Jefferson Medical College and Visiting Gynecologist to St. Joseph's Hospital, Philadelphia, Etc. Assisted by Arthur First, M.D., Associate in Obstetrics, The Jefferson Medical College Hospital, Philadelphia; Associate in Obstetrics, Mt. Sinai Hospital, Philadelphia; Assisting Gynecologist, Stetson Hospital, Philadelphia. Third Revised Edition, with 445 illustrations, mostly original, including 31 full page plates in color. Published by F. A. Davis Company, Philadelphia, 1939. Price $8.00.

This is the third edition of a work first published in 1924. It has been almost all re-written, and contains 442 illustrations, many of them in color. The chapters on "Symptoms," and "Diagnosis," and "Surgical Procedure" are especially recommended. Also included is a fine long list of referred reading.

PROCTOLOGY FOR THE GENERAL PRACTITIONER. By Frederick C. Smith, M.D., M.Sc., (Med.); F.A.P.S., Proctologist to St. Luke's and Children's Hospital, Philadelphia; formerly Associate in Proctology, Graduate School of Medicine, University of Pennsylvania. Illustrated with 142 Half-tones and Line Engravings and Three-Color Plates. Published by F. A. Davis Company, Philadelphia, 1939. Price $4.50.

A very practical and easily read volume which outlines simply and concisely the symptoms, pathology and office treatment of various proctological conditions which are seen frequently by the general practitioner. The discussion of anesthetics is very good and the various technics are described and evaluated. There are many illustrations and diagrams.

HEADACHE AND HEAD PAINS—A Ready Reference Manual for Physicians. By Walton Forest Dutton, M.D., Formerly Medical Director, Polyclinic and Medico-Chirurgical Hospitals, Graduate School of Medicine, University of Pennsylvania; Visiting Physician to the Northwest Texas Hospital; Visiting Physician to the St. Anthony's Hospital; Director, Medical Research Laboratories, Amarillo, Texas. Published by F. A. Davis Company, Philadelphia, 1939. Price $4.50.

This book discusses all the affections causing headaches and head pains numbering over two hundred. The author then discusses each cause and its action. Part of the book is devoted to lists of remedies for the relief of headache produced by any certain general condition.

DIAGNOSTIC SIGNS, REFLEXES AND SYNDROMES (Standardized). By William Egbert Robertson, M.D., F.A.C.P., Visiting Physician, Medical Division, Philadelphia General Hospital; Visiting Physician, St. Luke's and Children's Hospital and Northeastern Hospital; and Harold F. Robertson, B.S., M.D., F.A.C.P., Instructor

in Medicine, University of Pennsylvania; Assistant Visiting Physician, Medical Division, Philadelphia General Hospital and Methodist Hospital. Published by F. A. Davis Company, Philadelphia, 1939. Price $3.50.

This is more than a mere dictionary of names of various signs and syndromes. It is cross indexed under various types of conditions which give the busy practitioner diagnostic aid in a difficult case. For the man who does a lot of reading it is a "must book" in order to interpret the confusing names used by the various writers to describe various reflexes, signs and syndromes.

Wisconsin has 2,909,000 population. Of these 175,000 people are receiving direct relief; 195,000 exclusive of administration employees are supported by W.P.A. employment; 95,000 people are in families receiving one of the three Social Security aids. Representing all, 16 per cent of the population.—*Wisconsin Medical Journal* (Jan. 1940).

"State medicine is forced medicine. You will take it and like it. It is the doctor's dole, the patient's subsidy. The patient will do what he's told, the doctor will do what he's told. And the telling will be done by an office holder who wouldn't know what to do with a patient if he had one, but thinks he can tell the specially trained man how to do what he himself cannot do."—Terry M. Thompson, M.D., President, Medical Society of the State of New York.

Almost forty thousand less deaths from birth to forty years old between 1918 and 1938. There were twelve thousand deaths from the flu in 1918 to be deducted. There were twenty-three thousand more deaths in 1938 than 1918 from the ages forty up. Twenty-seven hundred deaths from the flu in 1918 in this group. There were five thousand less deaths of tuberculosis, four thousand less of infantile diarrhea one thousand less from diphtheria, five hundred less from whooping cough, five hundred less from typhoid fever, and thirteen less from small pox, there being fourteen in 1918 and one in 1938.—*Chicago Medical Society Bulletin* (Dec. 23, 1939).



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Chronic Cholecystitis

Present Medical and Surgical Status*

By Warren H. Cole, M.D.
Chicago, Illinois



Warren H. Cole, M.D.
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■ In chronic cholecystitis the question as to whether or not operation is advisable is always an important one. Operation in chronic cholecystitis rarely has urgent indications, except that in obstruction of the common duct by stone, operation will be imperative after the patient's condition has been brought up to the level of operability.

Astute judgment is frequently required before a correct decision regarding operation can be arrived at. The importance of this problem becomes more pronounced when we realize that chronic cholecystitis is one of the most frequent diseases which we encounter. For example, Blackford[1] noted that 6 per cent of all patients coming to a large western clinic presented complaints diagnosed as being produced by, or related to, gallbladder disease. The incidence can be appreciated more by Mentzer's[7] report analyzing 612 routine autopsies at the Mayo Clinic. He noted that 41 per cent of these patients had pathologic changes in their gallbladder. This figure excludes an additional 21 per cent in whom cholesterosis alone was found. Since the clinical significance of cholesterosis of the gallbladder is somewhat dubious, it naturally should be considered separately. In Mentzer's series gallstones were encountered in 20 per cent of all patients and in 21 per cent of all patients past the age of 21.

Before consideration of the factors determining medical versus surgical therapy we should consider the efficiency of the two major types of treatment. Surgeons who have conducted follow-up studies on cases postoperatively report 60 to 90 per cent of the patients free from symptoms. Discussion of the groups responsible for the variation in results will be taken up later. Medical therapy up until a few years ago has consisted of Lyons' duodenal drainage, and alterations in diet. A large percentage of patients note that fatty foods are poorly tolerated. Naturally abstinence from these foods will minimize many of the discomforts of cholecystitis, including dyspepsia, etc., but will not eliminate the acute attacks of colic. Within the past year or two Rewbridge[8] reported the disappearance of gallstone shadow by feeding bile salts. Not sufficient time has elapsed to determine what value this procedure may have. In recent years bile salts have been given to patients on more empirical grounds. A few investigators report amelioration of symptoms by this therapy. The experimental observations on deficiency in the bile salt content of bile in patients with hepatitis (even without symptoms) as noted by Smyth and Whipple,[9] Gray and associates,[4] and others, may offer the experimental proof for the satisfactory clinical results. This favorable effect of bile salt therapy would be explainable, however, only if the theory recently expressed by many, that hepatic insuffi-

*From the Department of Surgery, University of Illinois, College of Medicine and the Illinois Research and Educational Hospital. Read at the annual meeting of the Michigan State Medical Society, Grand Rapids, September 21, 1939.

ciency may be a primary factor in development of cholelithiasis or cholecystitis, is tenable.

Factors Determining Urgency of Operative Therapy

Correct diagnosis.—This factor is one of the most important ones to be considered in the treatment of cholecystitis. Even with the advent of cholecystography we still have great difficulty in diagnosis of cholecystitis, primarily because the patient may be suffering from more than one disease. Gallbladder disease is so common that on the basis of frequency alone we are bound to encounter it along with other diseases. In many of these cases the gallbladder disease, though proven, may be asymptomatic, and the other disease be causing the patient's symptoms. It is particularly important, therefore, that when the physician discovers the presence of gallbladder disease he should not cease his diagnostic investigation. Naturally, when the diagnosis is uncertain it would be a serious error to recommend operation. It is always advisable in these circumstances to treat the patient symptomatically and continue search for a correct diagnosis. This represents one of the occasions when medical therapy is the most valuable particularly since it is inefficient in the treatment of a severe gallbladder attack except through the use of narcotics, et cetera.

The type of discomfort complained of by the patient is extremely important in determining the correct diagnosis, and therefore, in estimating prognosis. Graham and Mackay,[3] Lehman and associates,[10] and others have called attention to the fact that patients with mild symptoms consisting primarily of dyspepsia will have a percentage of relief as low as 60 per cent or lower even though definite evidence of cholecystitis is proven. In this group, no doubt, the symptoms were frequently not produced by the diseased gallbladder. Severe pain in the right upper quadrant radiating to the back is much more diagnostic of the presence of active gallbladder disease than such symptoms as dyspepsia. In this group having severe pain, relief following cholecystectomy will approach 100 per cent. During acute attacks of pain, nausea and vomiting commonly occur. However, if nausea and vomiting persist after the pain has disappeared, or is accompanied by a relatively slight amount of pain, a suspicion should be aroused that gallbladder disease is not the cause of the patient's complaints. Numerous diseases including arthritis of the spine, colitis, carcinoma of the colon, et cetera, must be considered when a good history of gallbladder colic is not obtainable. Although many clinicians will probably not admit the existence of intestinal allergy there are others who believe this malady is commonly encountered. Undoubtedly if the syndrome actually exists there will be extreme difficulty in finding the offending food in many instances.

During recent years the experience with biliary dyskinesia (which from a practical standpoint consists of spasm of the sphincter of Oddi) has lent a disturbing influence upon surgical therapy. It is well known that certain patients having symptoms supposedly produced by gallbladder disease do not obtain relief following the proper surgical care. Walters and associates,[6] in this country, have called our attention particularly to the relationship of spasm of the sphincter of Oddi to persistence of symptoms following cholecystectomy. They have recommended the use of amyl nitrite and nitroglycerine. These drugs frequently relieve the spasm (including that of the duodenum), and pain is relieved. They very aptly emphasize the fact, however, that the possible presence of overlooked stones should always be borne in mind. Although cholecystectomy may, and does actually relieve symptoms produced by biliary dyskinesia, there are undoubtedly many instances when persistent pain following cholecystectomy is due to biliary dyskinesia (Walters and associates).

Age.—On certain occasions the age of the patient may be sufficiently important to determine the type of therapy. For example, if gall stones are found in a person as young as the early twenties, it is probably justifiable to advise operation even though symptoms may be slight. A few years ago the author operated upon a girl, seventeen years of age, with interval appendicitis, several days after the appendiceal attack had subsided; exploration during the appendectomy revealed gall stones. We naturally enlarged the incision and removed the gallbladder, although at no time had the patient complained of symptoms which could be ascribed to the gall stones. Sufficient adhesions were found about the appendix to prove the presence of an inflammatory process previously.

There is a general tendency throughout the medical profession to be too conservative in advising operation for gallbladder disease in aged people. In reality the indications for operation in aged people should be practically the same as in a person of middle age. The explanation of this statement lies in the fact that aged persons tolerate operations surprisingly well, if no complicating diseases such as cardiac disease, nephritis, et cetera, are present. It is likewise well known, however, that they tolerate the complications of gallbladder disease poorly. If the aged person is having considerable symptoms, it may, therefore, be important to have the gallbladder removed lest a delay allow the development of the complication of the gallbladder disease which may then lead to a fatality regardless of the type of therapy used.

Frequency and Severity of Attacks.—We stated above that attacks consisting primarily of severe pain in the right upper quadrant radiating posteriorly, accompanied by nausea and vomiting are typical of gallbladder disease, and are apt to be completely relieved by cholecystectomy. In such instances the clinician will be justified in advising operation, particularly since he can assure the patient that the chances of elimination of symptoms are greater than 90 per cent. When the attacks are mild or relatively infrequent, difficulty may be encountered in arriving at a decision regarding institution of conservative or operative treatment. Commonly, it will be very helpful to ask the patient if he is having sufficient discomfort to desire an operation. This is certainly a very fair procedure to institute. It has an added advantage of allowing the patient some responsibility. Naturally, there will be many occasions when indications point decisively to a certain type of therapy, and the clinician will strongly advise certain procedures regardless of the patient's inclinations. Naturally, when the patient is consulted regarding operation the clinician must bear in mind the fact that occasionally patients will resort to malingering tactics merely to be hospitalized. Occasionally, even operations will be looked upon as a desirable incident to relieve the monotony of life, but from a more important standpoint, to obtain narcotics.

Cholecystographic Findings.—Occasionally the symptoms will be so typical of gallbladder disease that cholecystograms will not be necessary. Rarely, however, is one justified in omitting this procedure which might offer some surprising information. The absence of production of shadow of the gallbladder is proof positive of the presence of cholecystitis of considerable degree, but only if the physician can eliminate such pitfalls as vomiting of the dye, inadequate dose, et cetera. It is a well known fact that most cholesterol stones are not impervious to the x-ray. All visible cholesterol stones will be made visible by cholecystography but only if dye can be concentrated in the gallbladder. Occasionally, the gallbladder will concentrate the dye in practically normal fashion but emptying will not take place following the fat meal. There is considerable dispute as to the value of this finding. The author is of the opinion that at least in many instances it is strongly indicative of the presence of gallbladder disease, which will be eliminated by proper therapy such as cholecystectomy. When the patient has had only an occasional attack, and cholecystograms reveal pathologic changes, it may be wise to wait several weeks and repeat the test because in the meantime the diseased gallbladder may recover. This recovery of the normal function has been observed by many clinicians and radiologists. In other words, by repeating the test a decision for conservative treatment may be made on the basis that the gallbladder disease perhaps will not recur.

Jaundice.—Naturally, if the patient has had symptoms suggestive of gallbladder disease, and in addition has jaundice, the diagnosis of a stone in the common duct is usually justifiable. Operation, therefore, becomes urgent. If the history reveals the fact that during a previous attack the patient was jaundiced for several days or a few weeks, the indications for operation will still be definite even though jaundice is absent when the patient is seen. The explanation for this strong indication for operation lies in the fact that although it is well known that many stones are passed through the sphincter of Oddi, they are apt not to pass if they are large enough to produce obstruction, and have done so. One must constantly bear in mind the fact, however, that jaundice may be produced by many diseases which are not surgical. One of the most common is so-called acute catarrhal jaundice. Occasionally, it will be extremely difficult to differentiate acute catarrhal jaundice from obstruction of the

common duct by stone, although the absence of pain in acute catarrhal jaundice is usually a reliable aid in diagnosis. Occasionally, the hepatitis which may accompany gallbladder disease will, in itself, be responsible for mild jaundice.

Pancreatitis.—It is a well known fact that acute pancreatitis is associated with gallbladder disease in about 90 per cent of cases of pancreatitis. It is likewise well known that acute pancreatitis, particularly, the hemorrhagic type is associated with a very high mortality. Both types tend to recur. It is, therefore, quite essential that gallbladder disease be treated surgically when acute pancreatitis is present. If the acute pancreatitis is of the edematous, or interstitial type, operation should be postponed until the patient has recovered from the attack. If the pancreatitis is of the acute hemorrhagic type, opinions differ as to whether operation should be performed as an emergency or should be postponed until the pancreatitis has subsided. It is the author's opinion that also in acute hemorrhagic pancreatitis, operation should not be performed as an emergency measure during the acute attack.

Pregnancy.—It is a well known fact that multiple pregnancies are important factors in the production of gallbladder disease, particularly of gallstones. Occasionally, acute attacks of gallbladder colic will be encountered during the last two or three gestations. These attacks may recur during the pregnancy and be sufficiently severe as to lead the clinician to believe that considerable gallbladder disease is present. However, after delivery the symptoms are apt to disappear entirely, and may even not recur again until a subsequent pregnancy. The severity of symptoms, therefore, as observed during pregnancy should not be considered as a factor in aiding one to decide upon an operative procedure. Perforation of the gallbladder in pregnant women occurs but rarely indeed.

Miscellaneous Factors.—The mortality rate following operation on the gallbladder is obviously a very important factor in determining whether or not operation is to be performed. There are also many factors associated with this that will be discussed later under a separate heading.

The presence of diseases of other organs produced by the cholecystitis may be a factor in strengthening the indications for operation. For example if liver function tests show a rather definite hepatic insufficiency not explained on other bases, it may be wise to eradicate the infection in the gallbladder to protect the liver from further damage. A question as to the advisability of cholecystectomy in the presence of certain cardiac diseases not explained on the basis of valvular lesions, syphilis, et cetera, has long been a debatable question. In general, it is the experience of most surgeons that cardiac disease is improved by cholecystectomy only on rare occasions. However, there are one or two reports in the literature describing patients with cardiac disease as improved after removal of their gallbladder. The same question as to the advisability of cholecystectomy in the presence of certain types of arthritis likewise is the cause of considerable debate. The amount of symptoms produced by the gallbladder disease in the presence of arthritis cannot itself be considered a criterion or indication for operation, since considerable pathologic changes can exist without symptoms. However, it would seem fair to assume that the less symptoms produced by the gallbladder disease the less likely would cholecystectomy improve the arthritis. In general then, cholecystectomy for cholecystitis in the presence of arthritis is rarely indicated. The obvious conclusion is that only on rare occasions indeed is the arthritis produced by gallbladder disease.

Factors Influencing Results of Operative Treatment

The morbidity and mortality of gallbladder operations naturally exert a very important influence on the indication for operation. It is true that the mortality rate following cholecystectomy and other operations on the biliary system vary tremendously. Most of the variation is due to a difference in the type of patient under discussion. It is probably safe to assume that considering all types of patients in a large variety of cases we should expect a mortality rate of at least 4 per cent. This would include charity patients as well as private patients. It is a well-known fact that the mortality rate in gallbladder operations is much higher in charity patients than in private patients. This has been emphasized particularly by Heyd.[5] The author concurs in this conclusion. Cholecystectomy alone in the absence of stone in the common duct should not be as-

sociated with a mortality much greater than 1 per cent or 2 per cent. On the contrary, the mortality rate following removal of stone in the common duct will be as high as 10 per cent. This factor of mortality then must always be taken into consideration when operation is discussed with the patient. Naturally, the mention of actual figures may not be advisable since the patient has probably a distorted conception of estimating danger on the basis of figures alone. Not infrequently there will be indications for operation in uncomplicated mild cases of cholecystitis on the basis of prevention of complications. For example, there will be strong indication for operation in a patient who has had attacks of pain (though only on one or two occasions) in the right upper quadrant, which were associated with jaundice of several days duration, on the supposition that stones were present in the common duct and are probably still present though quiescent. It is generally appreciated that gallbladder disease itself is not fatal, but that death in gallbladder disease results from its complications, including particularly stone in the common duct, perforation of the gallbladder and diseases of other organs. The factors responsible for death following operation are, of course, numerous. Peritonitis and pulmonary complications are the most important. The mortality rate may be lowered remarkably by proper preoperative and postoperative care. In preoperative care we should emphasize the importance of a high caloric intake, adequate fluid intake, and choice of operation at an optimum time as far as the patient's physical condition is concerned. If the patient is jaundiced because of a stone in the common duct vitamin K and bile salts should be administered at least four or five days before operation in order to prevent postoperative hemorrhage. Vitamin K and bile salts should be administered postoperatively after the second or third day in order to prevent the hemorrhage which is perhaps most apt to occur between the fourth and seventh postoperative days. Other important precautions in postoperative treatment consist of adequate fluid and electrolytic intake, treatment of gastric dilatation and ileus by Wangensteen suction as indicated, and proper administration of morphine for rest.

Naturally, the technic of the operation is an important factor in the mortality rate. Extreme care must be exercised in dissecting out the cystic duct lest the common duct be injured. If the common duct is to be opened it should be aspirated first lest an incision be made in the portal vein or across the hepatic artery, which not infrequently is in an anomalous position and covered by adhesions around the common duct.

Cholecystectomy and Life Expectancy

Naturally, the question arises as to whether or not removal of the gallbladder in itself exerts any harmful influence on body functions, particularly those related to the intestinal tract. In spite of the fact that a few authors have suggested that removal of the gallbladder may lead to deleterious changes, it is generally agreed that no harmful effects will result from its removal. Very few clinical attempts have been made to determine what influence, if any, cholecystectomy would have upon life expectancy. However, at least one survey regarding this point has been made. In an analysis of a group of people insured in the Metropolitan Life Insurance Company, Dublin[2] and associates noted that in patients who had cholecystostomy the actual death rate, following recovery from the operation, was 155.7 per cent of the expected rate. In a group of patients having cholecystostomy for stones the death rate was 214.9 per cent of the expected rate. In a group treated medically, the rate was 115.1 per cent. Patients having cholecystectomy had a death rate of only 95.9 per cent of the expected rate. It is obvious from these figures that patients having had cholecystectomy for their gallbladder disease had a longer life expectancy. The death rate of 4 per cent lower than the normal expected rate is probably explained on the basis of statistical error and should not be considered as indicating that patients will live longer after having had their gallbladders removed.

Inadequacy of operation is frequently responsible for many of the surgical failures. Naturally, the higher the percentage of failures following surgical therapy, the more favorably one would be inclined toward medical treatment. Accurate surgical judgment, therefore, as to the type of operation to perform will alter the opinion in a large group of cases as

to whether surgical or medical therapy is advisable. For example, cholecystostomy should not be performed when cholecystectomy is in reality indicated, because of the recurrence of symptoms which is so apt to take place a few years after cholecystostomy. Naturally, if the patient is aged, and not expected to live longer than three or four years, cholecystostomy may be performed with less thought about recurrence of symptoms. Perhaps a more important error in the type of operation to be performed is the failure to explore the common duct for stones. In our experience, a large percentage of patients having stones in the common duct are not jaundiced. A surgeon, therefore, must resort to accurate palpation of the duct for stones, and to inspection of it regarding size and thickness of its walls.

Summary

The decision as to whether surgical or medical treatment is advisable in chronic cholecystitis is frequently difficult to make, particularly since urgent or emergency operation in chronic cholecystitis is rarely indicated. The relief of obstruction of the common duct by stone accompanying chronic cholecystitis represents the one condition in which an urgent operation is indicated. Other than this condition the indications for operation are dependent upon the amount of pain and the prevention of complications of cholecystitis. The latter consideration is of importance because death from gallbladder disease results from the complications of the disease and not from the lesion itself. At least half of the patients with gallbladder disease are asymptomatic. The decision as to choice of therapy here would likewise be difficult to make. There is a tendency during recent years to ignore these instances of "silent gallbladder," except that the presence of stones in a young individual may be sufficient cause for cholecystectomy. In general there is far too much conservatism displayed in the operative treatment of aged people with gallbladder disease, particularly since aged people succumb so readily to the complications of cholecystitis. It is not fully appreciated that aged people tolerate abdominal operations including cholecystectomy quite well providing they have no serious disease such as myocarditis, nephritis, et cetera. However, they do not tolerate the complications of cholecystitis. One of the serious dangers incident to a major operation in an aged person is the development of postoperative pneumonia. New developments in anesthesia during recent years have enabled us to eliminate this complication to a great extent. Before operation is advised in any patient with gallbladder disease the physician should be sure of his diagnosis because failure to obtain relief is so often due to the performance of operation with the wrong diagnosis. It must be remembered also that cholecystitis is so common that there are bound to be many instances when a second disease will be present and be causing the patient's symptoms. If acute pancreatitis is present, operation is strongly indicated even though the symptoms of cholecystitis may be mild. On the contrary, operation for attacks of gallbladder disease during pregnancy is rarely indicated (either before or after delivery) because symptoms so frequently disappear completely after the baby is born.

Results following cholecystectomy will be much better in the group of patients complaining of severe pain in the right upper quadrant which radiates posteriorly. On the contrary, results will be poor in the group complaining of dyspepsia with only mild pain. Biliary dyskinesia accounts for a portion of the failures following cholecystectomy. As in most operations the type and thoroughness of the work done determines to a great extent what the results will be. For example, an ill-advised cholecystostomy may be followed by recurrence of symptoms which would have been relieved completely by cholecystectomy. As discussed in the text, the admirable report of Dublin in a study of life insurance statistics, has shown quite conclusively that cholecystectomy itself does not shorten life.

The presence of complicating diseases is important in making the decision as to operation. In general, diseases not secondary to the cholecystitis are contraindications to operation, whereas diseases secondary to gallbladder disease increase the indication for operation unless they have progressed to the point where operability is seriously jeopardized.

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Occupational Dermatoses

Treatment and Prevention*

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M.D., Jefferson Medical College, 1905. Entered U. S. Public Health Service 1906, and has served in various parts of the United States, Canada, Alaska, and the Philippines. Engaged in industrial hygiene service since 1920, has done investigations and written papers on Posture, Lighting, Radium poisoning, Lead poisoning, Trachoma, Occupational and other forms of contact Dermatitis, and written a textbook on Occupational Diseases of the Skin. Doctor Schwartz is now in charge of the Office of Dermatoses Investigations of the U. S. Public Health Service at the National Institute of Health, Bethesda, Maryland.

■ Most of the cases of industrial dermatoses occur on new employes and are usually mild in character. Such workers should be given a protective ointment to put over the exposed parts, proper protective clothing such as rubber gloves, aprons, etc., and kept on the job. Most of them will develop immunity. Those who do not should be given other work where they will not come in contact with the irritant. This usually effects a cure.

In applying medication to the lesions, only the mildest form of ointments or lotions should be used, such as boric acid or calamine. Strong medicaments are apt to irritate the skin and cause more dermatitis.

Chemical burns should be immediately immersed or flushed with water to dilute and remove the irritant and then treated as any other burn. In some factories where there is a hazard from alkali burns, as for instance in viscose manufacture, a weak solution of acetic acid is kept handy so that it can be applied immediately to places which the alkali had touched. It is doubtful if this practice is better than flushing with plenty of water. Acid splashes are treated in some factories with applications of lime water.

Ulcers resulting from such corrosives as chromic acid and chromates, zinc chloride and fluorides, are best treated by thorough curettement of the base, followed by aseptic dressings

Prevention

The ideal prevention is to so safeguard the operations that injurious chemicals do not come in contact with the skin. This can be done by installing totally enclosed processes. Modern factories are being built so that the worker need not come in contact with any of the chemicals used from the beginning of the manufacturing process to the very end. New chemicals are brought to the factory in enclosed railroad cars, emptied by suction hose into enclosed storage containers, from which they are sent through a closed system to the various retorts and kettles by turning valves. From the kettles the finished product is processed in totally enclosed machinery, such as filters, grinders, etc., and placed into closed shipping containers by means of pipes. In some industrial processes where this is not possible, or where old equipment is used, the workers must be protected by being compelled to wear suitable protective clothing such as rubber gloves, aprons, masks and goggles.

Protective clothing against skin irritants should be made with special consideration for the particular hazard involved. Closely woven, zipper-closed canvas coveralls, impervious to dust should be used for protection against irritant dusts. Rubber gloves should be long enough to cover all of the forearm and they should be tucked under the sleeves and the sleeves buttoned or tied over the gloves at the wrist so that the irritant can not get inside the gloves. Where the irritant is a dust, respirators should be worn. The filters of the respirators should be cleaned daily. The face should be greased with lanolin before the respirator is put on so as to prevent the skin from being irritated by the rubber margins of the respirator. Gas masks should be used against irritant fumes. Rubber boots should be covered by the trouser legs to prevent the entrance of irri-

*From a paper read at the Annual Meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 21, 1939.

tants at the tops of the boots. All protective clothing should be kept in good repair, and frequently cleaned. In jobs where there is a marked skin hazard, clean work clothes should be furnished by the management.

Over the processes from which are given off irritating dusts or fumes, special suction ventilating apparatus should be installed so that the irritants can not come in contact with the worker. The work rooms themselves should have proper and adequate ventilating equipment so that dusts and fumes have no chance to accumulate in any concentration. Rules for the use of protective measures should be enforced.

Cleanliness is of prime importance. The floors and walls of the work rooms should be kept scrupulously clean, as should all machinery. Convenient shower baths should be installed and the worker should be compelled to take baths after work. In factories where there are special skin hazards a double set of locker rooms should be provided, that is, one for street clothes and one for depositing the soiled work clothes. In this way the worker coming to work will enter the first locker room, where he will strip and leave his clothes in the locker. From there he proceeds through a hall to the second locker room, where clean clothes are waiting for him. From this locker room he proceeds to his work. At the end of the work shift he enters the locker room in which he had put on his clean work clothes. Here he deposits his soiled work clothes and goes to the shower baths. From the shower baths he proceeds to the locker room, where he had left his street clothes, puts them on and goes home.

There are many protective ointments on the market designed for the prevention of industrial dermatoses. These ointments are supposed to act by forming a protective film and thus prevent the irritant from coming in contact with the skin. Some of them are useful, others only imperfectly perform their function. They may be easily rubbed off during work or may be washed off by the perspiration. Some of them may offer protection against a particular chemical. There are very few of them, however, which can protect against strong alkalies. There are instances where a protective ointment may be of value, especially if used during the time pending installation of better protective measures. Protective ointments are usually washed off by the workmen before leaving the factory. This act also removes the irritant chemicals from the skin and is no small part of the protection supposed to be given by the ointment. Ointments should never be relied upon as a permanent preventive measure, but only as temporary expedients pending the installation of proper safety appliances.

New applicants for work should be carefully examined and those having such predisposing skin conditions should not be employed in occupations where there is a skin hazard. The workers should be encouraged to report to the medical department all irritations of the skin, no matter how trivial. There should be frequent medical examinations of the workers to discover the presence of skin diseases which have not been reported. The physician in charge should have a working knowledge of dermatology and give proper treatment for these cases, or, if he does not have such knowledge, dermatological cases should be referred to a consulting dermatologist.

It is not always necessary to remove the worker from his job in order that he may get well. Indeed, it is sometimes better to allow him to continue working if he has a mild dermatitis and treat him while he is working, in the hope that he will develop an immunity or become "hardened," as the workers themselves call it. A great many workers will become hardened and the immunity thus acquired usually lasts while working and sometimes will continue for a considerable period after contact with the chemical has ceased, so that the worker may stay away from his job for two or three weeks and come back and still be immune. If, however, he stays away for a few months, he will in most cases lose his immunity and will again have to go through the process of becoming hardened. Those workers who develop such a severe dermatitis that they can not get well while working should be removed from the job and when they have recovered they should be placed in some other part of the plant where they will not come in contact with the offending substance.

Whilst meager Phthisis gives a silent blow
Her Stroaks are sure; but her Advances slow
No loud alarms nor fierce assaults are shown;
She starves the Fortress first, then takes the Town.

From "The Dispensary: A Poem" in Six Cantos, by Samuel Garth, London, 1699.

The Control of Pneumonia*

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■ Ever since the isolation of the pneumococcus, simultaneously by Pasteur and Sternberg, this microörganism has been found present in pure culture in the majority of cases of lobar pneumonia and therefore has been considered the etiologic agent. Other organisms which infect the lungs, cause consolidation to a more or less extent, but the pathological picture is different from that obtained by typical pneumococcus lobar pneumonia. However, just what rôle the pneumococcus plays in the actual precipitation of disease is not too clearly understood. It is possible that it acts as a secondary invader following a virus disease such as the common cold, or infection with other microörganisms, or an alteration of other host factors, which lower the defense sufficiently to allow invasion by this microörganism.

Since the discovery by Pasteur that the pneumococcus is present in the saliva of the human beings, many investigators have shown at least through part of the year this organism occurs almost universally in the upper respiratory tract of man.

The work of Gundel and his associates[4] in 1931-33 is of special interest in that pneumococci were not found in the respiratory passages of new-born babes, but might occur on the second or third day. He also reported in a group of over 100 tested throughout the year that pneumococci were present in 60 per cent. He concluded from his study that vegetative forms of pneumococci were not instrumental in causing pneumonia, but like Dochez and Avery[1] believed that the causative organism came from without. It appears well founded that a higher percentage of pneumonia results from the contact with an actual case; but if that were the sole source of the infective agent, it would be difficult to explain many isolated cases of pneumonia not known to have made any pneumonia contact, and as a matter of fact to explain the origin of pneumococci capable of producing disease.

Carriers of Pneumococci

Again it would appear that man is peculiar in that he harbors pneumococci with greater frequency than any other animal. Strangely enough, man is the only animal in which there is a great diversity of pneumococcus types. In other words, man either furnishes the soil for the different varieties of this bacteriological seed or produces variants of a common variety depending upon biochemical differences in individual animals.

If the discussion is confined to man, obviously the answer to the question as to why pneumonia incidence is so low despite this widespread carrier state of the pneumococcus, might go far toward the development of procedures for the control of this disease. In other words, why, when so large a percentage of the population carries the pneumococcus, is the incidence of pneumonia annually in the United States approximately one out of 500 individuals? Leaving out of consideration as possible influences superstition, such as terrestrial manifestations, the number of meteors, sun spots, relative position of the other planets to earth, and other remote environmental conditions, the two main etiological variables are first the pneumococcus and second the host or man.

The pneumococcus varies in invasive power or virulence as estimated in the experimental animal. From the relatively small number of observations made by us, this characteristic changes with the different seasons of the year. Microbic virulence was found to be lower, at least in the north temperate zone, in the summer months. Such a test in itself is not con-

*From the Division of Infectious Diseases, National Institute of Health. This is one of a series of studies carried out in part under a grant from the Influenza Commission of the Metropolitan Life Insurance Company. Read before the Michigan State Medical Society, September 21, 1939.

clusive; for a titration of organisms isolated in summer from human beings and tested in animals at the same time does not take into account the possible high resistance of both man and mice in that season of the year. In other words, there might well be an increased resistance of both man and mice to the pneumococcus during warm weather. Accordingly, this fact must be known before any deductions can be made concerning the virulence of the pneumococcus at different seasons of the year. Furthermore, virulence for mice does not necessarily indicate the same characteristic for human beings, nor conversely does virulence for human beings imply virulence for mice. Observations by the writer as well as by other investigators indicate that virulence of pneumococci isolated from normal individuals varies for white mice. Furthermore, such a variation has been found with organisms isolated from pneumonia patients before treatment specific or non-specific had been started. The literature is full of observations of the difference in virulence of pneumococcus for the different species of laboratory animals. As an example, my stock strains of Type I and II are virulent for white mice to a degree that one organism generally comprises a lethal dose. Yet 1 c.c. of eight-hour culture, containing a billion or more organisms, has no effect on rabbits other than being a good antigen for stimulation of serum antibodies. Accordingly, it cannot be assumed from the fact that a large percentage of the population harbors organisms virulent for mice, that they are virulent and disease-producing for human beings. As a matter of fact, the observation of Dochez and Avery,[1] confirmed by others, that incidence of pneumonia is higher in contacts than in normal carriers, indicates an acquired virulence of the pneumococcus for man by passage through man.

Contagion

The late Dr. Janeway, Professor of Medicine at Johns Hopkins University, after a pneumonia patient suffering from Type I pneumococcus coughed in his face, made a statement to students that that was the way pneumonia was spread. He died four days later with the same type of pneumococcus infection as the patient. Nevertheless, the commensal relationship of pneumococcus and man cannot be overlooked. It is undoubtedly because of this relationship that the organism maintains sufficient disease-producing characteristics to allow invasion when conditions of the host will permit. The late Theobald Smith said the best way of stopping an epidemic was the destruction of the dead animal, thus killing the infective agent. Of course, he inferred by this that possible contacts should be isolated. In other words, the organism would commit suicide by killing the host. From the standpoint of commensalism of the organism and the host, these relationships exist: the greater the virulence of the organism, the greater is its invasiveness; but the greater the virulence, the greater is its antigenicity. In consequence, if the host is capable of responding to the antigen supplied by the pneumococcus with the resultant formation of antibodies, the barrier against invasion is increased and the organism becomes avirulent and lives only on superficial tissue or dies. Thus, the virulent organism carries with it ability to produce disease or to produce immunity of the host so that the host can kill the organism. If the purpose of the pneumococcus is to produce disease in man or other animals, it is difficult to reconcile these two opposed forces. Certainly the organism does its best to keep the host alive. If the host cannot respond to the antigenic stimulus, or has a natural or temporary low resistance whatever the cause, and is infected, the result is invasion by the organism and contraction of lobar pneumonia.

How Does the Pneumococcus Help the Host?

So far we have spoken mainly of the part the pneumococcus plays in the commensal relationship with the host. As far as known, the organism adds nothing beneficial to its host with the exception of furnishing an antigen which may result in stimulation of serum antibody and thus prevent bacterial invasion. It is not to be inferred that it is our belief that the specific antibody is the only defense of the host to limit the commensal to superficial animal tissue. As a matter of fact, all the factors which influence natural resistance, as opposed to specific, are not definitely known. Indeed, this activity of the host may be the most important method in the control of infectious diseases. Yet it is difficult to eliminate the anti-

TABLE I. INDIVIDUAL VARIATION IN ANTIBODY RESPONSE

Type I

Ages	Total	Lethal doses*													
		Number before immunization							Number after immunization						
		0	1	10	100	1,000	10,000	100,000	0	1	10	100	1,000	10,000	100,000
2-9	5	5	0	0	0	0	0	0	0	0	0	0	5	0	0
10-19	130	94	13	10	9	2	2	0	3	4	5	17	34	41	26
20-29	163	118	14	13	12	3	2	1	8	3	11	25	55	38	23
30-39	122	94	10	3	5	5	2	3	9	3	12	22	36	25	15
40-49	88	60	15	5	5	1	2	0	5	3	11	10	19	24	16
50-59	65	38	13	9	3	1	0	1	6	1	6	9	15	14	14
60-69	51	30	16	3	1	1	0	0	5	3	5	10	9	9	10
70-79	17	14	2	0	0	1	0	0	2	2	2	2	2	4	3
Totals	641	453	83	43	35	14	8	5	38	19	52	95	175	155	107

*Lethal doses against which 0.1 c.c. serum protects mice.

body as a very potent force. It is now known that from birth to about 1½ years, no pneumococcus serum antibody is demonstrable despite its presence in the mother at birth of the child, nor has it been possible to stimulate this protective substance by any antigen so far utilized.[2] From the age of two years and above, antibody is stimulated with considerable regularity. But before immunization from the low age groups, the number who have demonstrable antibodies in their sera, increases with each year to the adult group. At this time, approximately 25 per cent of those tested were found to have serum antibodies before immunization. Certainly more than 25 per cent of the general population harbor the pneumococcus. It is conceivable that this percentage represents those who respond well to pneumococcus antigen and are highly resistant to infection. On the other hand, pneumococci have been found to vary in antigenicity, and consequently there may not be in certain individuals at any one time an antigenic dose. As a matter of fact, this may also be true of those who carry fully virulent and antigenic pneumococci. Just how far specific response to pneumococci may influence the incidence of pneumonia is our present thesis. Our efforts have been primarily focussed on the host's ability to respond to the antigenic polysaccharide of the pneumococcus isolated from highly virulent strains. Vaccines of all descriptions have been used since Pasteur's time to increase host resistance—vaccines made from virulent organisms, but by no means standardized and not generally shown to stimulate serum antibodies. Early in our work it was observed that there was a great individual difference in response to a constant dose of a given antigen. A certain small percentage of individuals are unable to respond as indicated by the absence of serum antibodies after immunization; others vary as in those from whom 0.1 c.c. serum protects white mice against from one to as much as 2,000,000 lethal doses. It thus appears possible that the individual who responds to a given standard antigen might serve as a measure of the relative resistance to the pneumococcus invader. The explanation as to why one individual out of 500 contracts lobar pneumonia annually might well be related to the ability of the host to respond to the antigen present in the commensal parasite.

Active Immunization

Our work on active immunization so far completed is summarized in the following ta-

TABLE II. INDIVIDUAL VARIATION IN ANTIBODY RESPONSE
Type I

Ages	Total	Lethal doses*													
		Per cent before immunization							Per cent after immunization						
		0	1	10	100	1,000	10,000	100,000	0	1	10	100	1,000	10,000	100,000
2-9	5	100.0	0	0	0	0	0	0	0	0	0	0	100.0	0	0
10-19	130	72.3	10.0	7.6	6.9	1.5	1.5	0	2.3	3.0	3.8	13.0	26.1	31.5	20.0
20-29	163	72.3	8.5	7.9	7.3	1.8	1.2	0.6	4.9	1.8	6.7	15.3	33.7	23.3	14.1
30-39	122	77.0	8.1	2.4	4.0	4.0	1.6	2.4	7.4	2.4	9.8	18.0	29.5	20.4	12.2
40-49	88	68.1	17.0	5.6	5.6	1.1	2.3	0	5.7	3.4	12.5	11.3	21.5	27.2	18.1
50-59	65	58.4	20.0	13.8	4.6	1.5	0	1.5	9.2	1.5	9.2	13.8	23.0	21.5	21.5
60-69	51	58.8	31.3	5.9	2.0	2.0	0	0	9.8	5.9	9.8	19.6	17.6	17.6	19.6
70-79	17	82.3	11.8	0	0	5.9	0	0	11.8	11.8	11.8	11.8	11.8	23.5	17.6
Totals	641	70.6	12.9	6.7	5.5	2.2	1.2	0.8	5.9	3.0	8.1	14.8	27.3	24.1	16.6

*Lethal doses against which 0.1 c.c. serum protects mice.

TABLE III. INDIVIDUAL VARIATION IN ANTIBODY RESPONSE
Type II

Ages	Total	Lethal doses*													
		Number before immunization							Number after immunization						
		0	1	10	100	1,000	10,000	100,000	0	1	10	100	1,000	10,000	100,000
2-9	3	3	0	0	0	0	0	0	0	0	2	0	1	0	0
10-19	119	90	13	6	3	3	2	2	0	0	2	6	28	34	48
20-29	167	123	11	9	14	8	2	0	2	3	6	17	69	36	34
30-39	127	92	9	9	9	2	4	2	4	0	10	14	34	30	35
40-49	92	63	13	4	6	2	4	0	1	0	3	12	17	26	33
50-59	68	52	8	1	3	0	3	1	1	0	3	6	16	18	24
60-69	48	37	5	2	2	1	1	0	0	1	1	6	8	17	15
70-79	16	12	1	1	0	2	0	0	0	0	2	2	3	7	2
Totals	640	472	60	32	37	18	16	5	8	4	29	63	176	168	191

*Lethal doses against which 0.1 c.c. serum protects mice.

bles. In Table I are given the results of Type I serum titrations, both before and after immunization, of 641 individuals in age groups in decades from 2-9 to 70-79. The method of estimating the antibody content is the same as used previously in which titrations with the same culture were done on the same day against serum both before and fourteen days after immunization, with culture dose varying logarithmically. Contrary to expectations from

TABLE IV. INDIVIDUAL VARIATION IN ANTIBODY RESPONSE
Type II

Ages	Total	Lethal doses*													
		Per cent before immunization							Per cent after immunization						
		0	1	10	100	1,000	10,000	100,000	0	1	10	100	1,000	10,000	100,000
2-9	3	100.0	0	0	0	0	0	0	0	0	66.7	0	33.3	0	0
10-19	119	75.6	10.9	5.0	2.5	2.5	1.7	1.7	0	0	1.7	5.0	23.5	28.5	40.3
20-29	167	73.6	6.6	5.4	8.3	4.5	1.2	0	1.2	1.8	3.6	10.1	41.3	21.5	20.3
30-39	127	72.4	7.1	7.1	7.1	1.6	3.1	1.6	3.1	0	7.9	11.0	26.7	23.6	27.5
40-49	92	68.4	14.1	4.3	6.5	2.2	4.3	0	1.1	0	3.3	13.0	18.4	28.2	35.8
50-59	68	76.4	11.8	1.5	4.4	0	4.4	1.5	1.5	0	4.4	8.8	23.5	26.4	35.2
60-69	48	77.0	10.4	4.2	4.2	2.1	2.1	0	0	2.1	2.1	12.5	16.7	35.4	31.2
70-79	16	75.0	6.2	6.2	0	12.5	0	0	0	0	12.5	12.5	18.7	43.8	12.5
Totals	640	73.7	9.3	5.0	5.7	2.8	2.5	0.8	1.2	0.6	4.5	9.8	27.5	26.2	29.8

*Lethal doses against which 0.1 c.c. serum protects mice.

the increased mortality rate of lobar pneumonia with advancing years, there apparently is no difference in antibody response in the various decades. This is shown more clearly, perhaps, in Table II in which the results are calculated on the percentage basis. The sera from 70.6 per cent of the individuals before immunization failed to show demonstrable protective antibodies. After immunization, on the other hand, only 5.9 per cent were negative.

The same general result was found in the case of Type II shown in Tables III and IV. Out of 640 individuals tested,† 73.7 per cent gave negative antibody titer before immunization and 1.2 per cent after immunization. Also, like Type I, variation is significant in the serum antibody content following immunization in the different individuals irrespective of age.

Chart I gives a comparison in percentages of the antibody content of the negative serum before and after immunization. Apparently there is no significant difference in the various age groups with perhaps the exception of the ones from 50 to 69 in Type I; in these two decades there is an unexpected number of individuals whose sera contained protective antibody. The opposite is true in case of Type II. However, it is possible when a larger group is studied that this difference may be found to be due to a weighted sample. After immunization there is a fairly constant increase with advancing years in the percentage of Type I individuals who give a negative response, but with Type II the opposite relationship is observed.

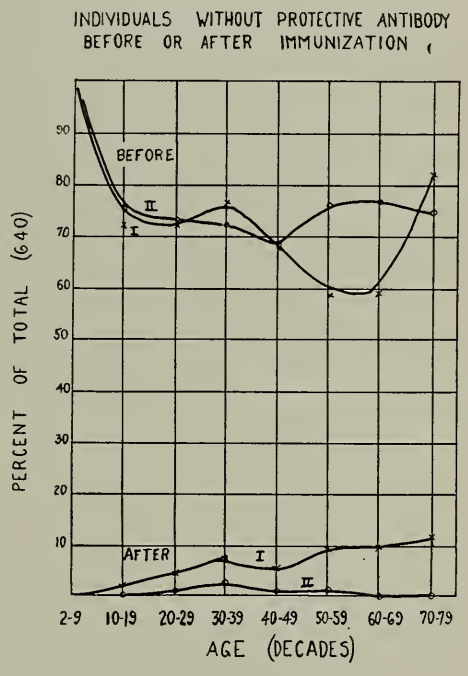


CHART I.

To emphasize the individual variation a com-

†The study of the 640 individuals was in part done through the coöperation of Dr. W. Ross Cameron and Dr. Perry Franklin Prather. More detailed report will be published elsewhere.

posite graph of the entire group is shown in Chart II. This represents the percentage of individuals whose sera failed to protect and the percentage of individuals whose sera protected against from 1 to 100,000 lethal doses

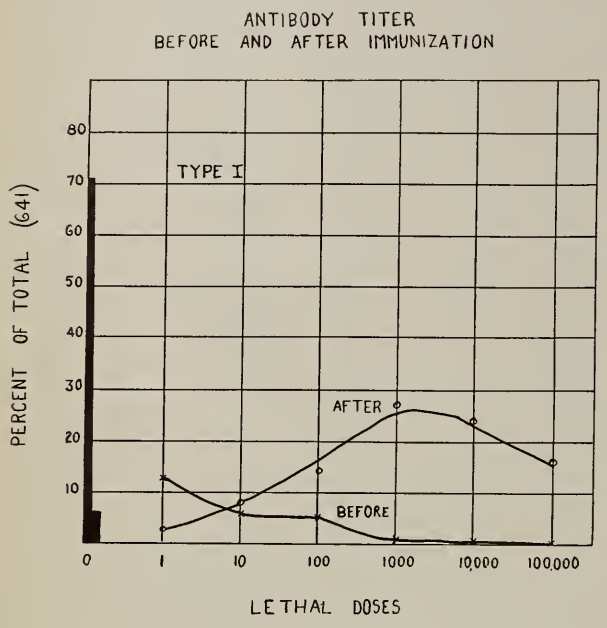


Chart II.

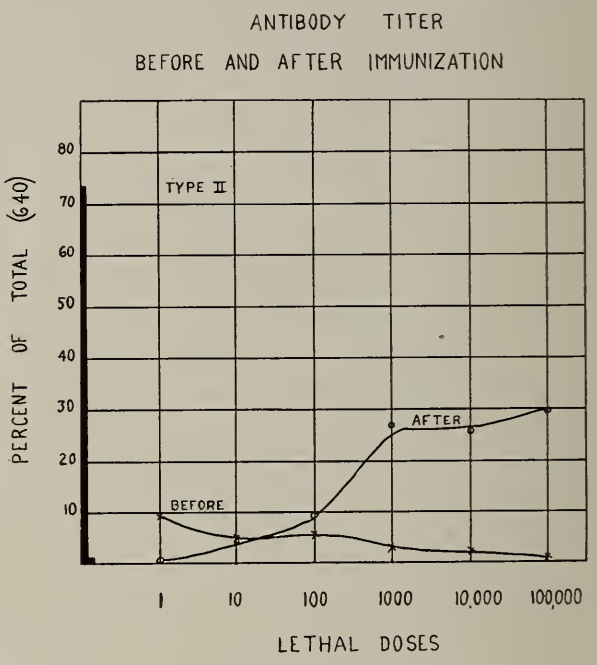


Chart III.

in whom the incident rate of lobar pneumonia is low.

Antibody Content

Antibody content so far has been estimated by mouse protection tests. This procedure is expensive and has many disadvantages for a continued study of this problem. In coöperation with Prather,[3] the skin test of Francis and Tillett[4] was employed in view of its substitution for the mouse protection test. Preliminary study shows that there is no relationship between serum antibody titer and intensity of reaction; furthermore there is an error in agreement of approximately 20 per cent. This 20 per cent represents those individuals who are skin-negative and serum antibody-positive as well as those who are skin-positive and serum antibody-negative. However, although the error is high, it perhaps represents the type of accuracy generally obtained by skin tests. For that reason, it is the method of choice to separate individuals into those who fail to respond to the pneumococcus antigen used from those who react. This procedure is being used in the hope of determining whether individuals can be separated into susceptibles and non-susceptibles. If such be true, efforts to increase the resistance of the susceptible group would not be an impossible task, since from our study over 90 per cent, as

of Type I pneumococci. The same for Type II is shown in Chart III. As indicated in our above discussion, our interest at present is the determination of the degree of variation in response to a constant dose of antigenic polysaccharide. The number of individuals who failed to respond is important if it is found later that the incident rate of lobar pneumonia is high in such individuals. If, on the other hand, this is a temporary state and does not represent a defective mechanism in the manufacture of antipneumococcus antibodies, such individuals would be included in the general curve representing individual variations. That is, the picture obtained by the study of these two charts shows a pronounced difference in ability of man, as is well known in other animals, to manufacture serum antibodies against, in this case, pneumococcus. The problem at hand, therefore, is to follow individuals so tested to find out whether or not those who fail to respond and those who respond but poorly are highly susceptible to pneumococcus infection or the contraction of lobar pneumonia, and those who respond well are resistant,

estimated by the mouse method, may be considered as good reactors.

It is not to be inferred, however, that other host factors do not enter into resistance to this organism, such as physical habits, diet, exposure, et cetera. The factors which influence the degree of natural resistance must be broken down, studied and analyzed to reveal the significant ones. It would be important to see how far the observations made by Rich and McKee,[8] Stillman and Branch,[10] and also Pickrell[7] influence the incidence of pneumonia. Rich and McKee have shown that highly immunized rabbits in which the leukocytes are decreased by benzol are no more resistant to virulent pneumomocci than non-benzol treated normal animals. More recently, Rich[9] has reported that injection of avirulent pneumococci apparently without capsular material caused a fatal infection in rabbits similarly treated. It must be pointed out, however, that the introduction of benzol may have some other influence on the defense of the animal in addition to the reduction of white blood cells. In a similar manner, Stillman and Branch have reported decrease of resistance with intranasal inhalations of pneumococci in alcoholized mice. In other words, at least for mice, host resistance was altered by an organic compound which is imbibed more or less generally by the human being. Recently, Pickrell has also found that rabbits given alcohol or subjected to ether or avertin anesthesia were susceptible to small doses of virulent organisms in the presence of large amounts of pneumococcus antibody. There was no significant decrease in the number of leukocytes and yet ability of the host to use protective antibody was greatly reduced. Clinically the pneumococcus pneumonia from anesthesia is well known. What other chemicals influence resistance positively or negatively is a problem for future study. Since the pneumococcus is so widespread, efforts must be made toward analysis of the conditions which change the normal commensal to a virulent parasite.

Methods of Control

It is thus seen that methods of control of pneumonia must be two: first, the cure of the disease when it occurs, and, second, prevention by increasing resistance of the host non-specifically or specifically. Definite advances in the first have been made in the past fifteen years. For in this period, methods have developed and been made practical for the use of serum therapy resulting in the saving of many lives, a decrease in the mortality of lobar pneumonia for the first time in the history of medicine.

Sulfapyridine

The introduction by Whitby[11] of England of sulfapyridine has been followed by promise in the treatment of this disease. It appears from preliminary studies that this compound is equal, if not superior, to specific serum therapy. However, the drug is not ideal in that it has certain toxic manifestations and is absorbed irregularly by different individuals. It is thus difficult to establish and maintain a therapeutic blood concentration. Just how far this drug can be relied upon depends upon results of the many experiments that are being run the world over. In the United States, it must be borne in mind that 75 out of 100 patients have recovered before the introduction of either specific serum therapy or sulfapyridine. The problem really is the reduction in mortality among this 25 per cent. Consequently a relatively large number of patients must be treated and compared with controls in the same season before true evaluation of sulfapyridine can be effected. It is possible that the best form of treatment as suggested by many physicians would be combined serum and sulfapyridine therapy; or perhaps as suggested by MacLean, Rogers and Fleming,[5] vaccine and sulfapyridine. However, if the results stated above are true in the general population, that certain individuals only respond to antigens and vaccines, and the incidence of pneumonia is high in those who respond but poorly, then certainly the introduction of vaccine would be of little value, and might even be counterindicated. **The control of pneumonia depends upon establishment of facts by laboratory workers and clinicians alike which will increase our knowledge as to the influence of infectivity of the organism, natural or acquired resistance of the host, and the best form of treatment of the disease.**

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Postero-Lateral Dislocation of the Elbow

Associated with Displacement of the Internal Epicondyle into the Joint*

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The center of ossification of the internal epicondyle makes its appearance at about the age of five, and fuses at about the age of eighteen. During the period of its development, indirect violence exerted through the common flexor origin of the forearm musculature may tear it from its attachment. If the violence be sufficiently severe to rupture the capsule and the internal collateral ligament, the detached fragment may be caught within the joint between the trochlear surface and the sigmoid cavity of the ulna. The injury usually occurs as a result of a fall upon the outstretched arm. The carrying angle of the outstretched arm places the internal aspect of the elbow at a mechanical disadvantage, and trauma to the medial structures results. In children younger than ten years of age, the type of injury encountered is usually a simple tearing of the joint capsule, and a displacement of the internal epicondyle into the joint. This type of injury is fairly common. As age progresses, the child takes on an added weight, and the ligamentous structures become less elastic. Therefore, due to added weight, the severity of the violence increases at the same time that the capacity of the elbow to withstand violence decreases. In older children and young adolescents, therefore, a frank dislocation outward and posteriorly of the forearm on the arm may occur. In these cases, not only is the detached epicondyle drawn into the joint, but the ulnar nerve as well may be caught within the joint cavity, resulting in an ulnar paralysis of varying degree. This complication has been present in the majority of cases reported. Diagnosis is made by x-ray which reveals the epicondyle to be missing from its normal location, and an opaque shadow within the joint space.

Treatment

The treatment of these cases is either manipulation or open reduction. In one of our cases considerable restriction of motion resulted which we directly attribute to trauma incident to an attempt at closed reduction. We believe that manipulation, if attempted at all, should be extremely mild in character, and performed as soon as possible after the injury occurs. Forced manipulation will not only be unsuccessful in the majority of instances, but may very easily stretch or crush the ulnar nerve if it is caught within the joint. In both of our cases it was found exceedingly difficult to effect a reduction, even when an adequate exposure was made and the fragment extracted. In neither case could closed reduction possibly have been successful. If surgery is resorted to, the nerve may be found to be traumatized sufficiently to require its transposition, thereby obviating the possibility of a late ulnar palsy.

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The joint is opened by a postero-medial incision, the nerve identified above the lesion and carefully following downward. The flexor origin and the detached epicondyle are then identified and extracted from the joint. The epicondyle may be removed, or reattached with a bone peg. In our cases the epicondyle was removed in toto, and the common flexor tendon sutured to the periosteum of the humerus. The nerve should be transposed anteriorly if there is any possibility of its becoming caught in fibrous tissue later. A plaster mold is applied with the arm at a right angle. The mold should be discarded at the end of two weeks, the arm placed in a sling, and motion inaugurated.



Fig. 1, A. Fig. 1, B.

Fig. 1. A, B. Demonstrating the detached medial epicondyle displaced downward and backward and lying within the joint.



Fig. 2. Fig. 3.

Fig. 2. Following open reduction. The dislocation has been reduced and the medial epicondyle removed.

Fig. 3. One year following reduction. Demonstrating calcification within the external ligaments of the elbow.

Case Reports

Case 1.—J. S., aged sixteen, was injured while wrestling. He was suddenly shoved and fell on his outstretched arm. Examination on admission revealed a lateral and posterior dislocation. There was no involvement of the ulnar nerve. Radiographs revealed the postero-lateral dislocation, but also revealed that the medial epicondyle had been torn from its attachment and displaced downward into the joint. The day following admission, manipulation was attempted and strenuous efforts made to effect a reduction according to the method advocated by Schmier. This was unsuccessful and open reduction was then performed. At operation the medial epicondyle was found tightly wedged within the joint. A taut musculofibrous band had been drawn into the joint with the bony fragment. Reduction was accomplished but was difficult, even when the joint was open and the fragment extracted. The epicondyle was returned to its normal position and held in place by suturing the soft tissues. Baking, massage, and active motion were instituted at the end of ten days, and the splint removed entirely at the end of one month. Five months after the operation, about 60 degrees of motion in flexion was present, and there was some loss of supination. X-rays taken at this time revealed the development of calcification in the capsule on the outer aspect of the joint.

Re-examination two years following the injury revealed 30 degrees limitation in extension, and 30 degrees limitation in flexion. Pronation and supination were normal. The boy was engaged in heavy work, which he was able to accomplish without discomfort.

Case 2.—F. T., aged sixteen, gave a history of having fallen from a table on his outstretched arm. Upon admission to the hospital radiographs were taken which revealed findings identical with those of Case 1. No ulnar paralysis present. Under general anesthesia, a very mild manipulation was attempted. This was unsuccessful in effecting a reduction, and open opera-

tion was performed. Findings similar to those seen in Case 1 were found. The fragment was removed and the dislocation reduced with considerable difficulty. Motion was inaugurated at the end of two weeks and physiotherapy instituted.

Reëxamination at the end of two years showed this case to have a complete recovery of function with the exception of about 15 degrees limitation of motion in extension.

Summary

1. Cases of postero-lateral dislocation of the elbow in children with displacement of the internal epicondyle into the joint are being reported with increasing frequency in the literature.

2. These cases are frequently complicated by an ulnar nerve palsy.

3. Manipulation, if attempted, should be very mild in character.

4. Operative reduction with excision or pegging of the medial epicondyle should be done.

5. Transplantation of the ulnar nerve to the anterior aspect of the forearm may be necessary.

6. Ossification within the ligaments on the outer aspect of the elbow may be a late complication.

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Progress in Psychiatry

Martin H. Hoffman, M.D., Clinical Director of the Eloise Hospital, Eloise, Michigan, and Director of the Eloise Parole Clinic, Detroit, Michigan, summed up in the November, 1939, issue of *Hospitals* the practical side of psychiatry is rehabilitating certain of their patients. About 60 per cent of their patients in the parole clinic are between the ages of thirty and sixty and yet they have been able to place in gainful employment 41.4 per cent, which is a remarkable figure. Another interesting fact is that more than half of the group have carried on more social activities after they left the hospital than they had previous to admittance, which is an indication of the success of re-socialization in this class of patients.

Bacillary Dysentery

By Vincent L. Barker, M.D.
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■ Bacillary dysentery occurs frequently enough in this locality for its clinical picture to be easily recognized. However, what is not so commonly diagnosed is infection with bacillary dysenteriæ without gastro-intestinal symptoms.

The following cases are of more than usual interest because of their occurrence in Michigan among people who have never been in the south, and because they differ in symptomatology from the reported cases of dysentery. A summary of the symptoms usually attributed to infection with either Shiga, Hiss-Y, or Flexner bacillus includes fever, abdominal pain, mucus and blood in the stools, and diarrhea in the acute cases, and in the chronic, recurrent periods of diarrhea lasting a few days, with other evidences of chronic infection such as anemia, malaise, and low-grade fever.

Fifteen cases have been seen, of which the following reported ones are examples in which no reference was made in the history to the gastro-intestinal tract. Diagnosis was made only after ruling out all possible causes for the chronic disability of the patients.

Case 1.—White male, office worker, aged thirty-four, complained of nervousness, inability to concentrate at work, slight loss of appetite, loss of ten pounds weight in six months, and moderate constipation. This patient said he had not been feeling well for the past year and a half. The gastro-intestinal history was negative and he had never had a diarrhea. Both medical and surgical history were negative.

Physical Examination: Adult male. Appeared pale. Skin warm and moist, pulse 100. Examination of the abdomen showed slight tenderness on deep pressure over the cecum, although abdominal pain was not one of his complaints. Chest x-rays were negative. B.M.R. —10%. The Kahn, Widal tests and agglutination for undulant fever were negative. Blood culture negative. Agglutination for Flexner bacillus was positive, agglutination of 1-320, Shiga 1-60 in August, 1936. Treatment consisted of stock vaccine injections beginning with 4 m. increasing 1 m. up to 15 m. at five-day intervals. The first doses of vaccine caused severe local reactions, the later doses of 1 c.c. caused very slight local reac-

tion and no general reaction. Patient seen April 1, 1938. Had gained considerable weight and still had no gastro-intestinal complaint. Agglutination with Flexner bacillus was positive, with an agglutination of 1-40. There was no other treatment than the use of stock vaccine.

Case 2.—Housewife, age 35. First seen in July, 1936. Complaint, periodic headaches, weakness, dizziness, had lost no weight and had no gastro-intestinal history. Dyspneic on slight exertion and tires easily. A complete physical examination included a negative chest x-ray and B.M.R. The only positive findings were, red blood count 3,800,000; Hemo. 80 per cent, agglutination test for dysentery bacillus positive for Flexner bacillus agglutination 1-160, Hiss-Y bacillus 1-80, negative for Shiga, undulant fever and typhoid fever. Negative Kahn.

This patient was given the same treatment with stock vaccine plus ferrous sulphate by mouth, two grains four times a day.

December 19, 1937, the red blood cell count was 5,200,000. The headaches and weakness had disappeared and the patient considered herself normal. Another blood count was not taken.

This patient was seen again in March, 1938, and had no gastro-intestinal symptoms nor any of the general symptoms complained of two years before. Blood for agglutination with Flexner dysentery bacillus at this time showed a positive agglutination for Flexner bacillus 1-40.

Thirteen other cases similar to these with similar findings have been treated with stock vaccine, giving good symptomatic results, giving a rise in hemoglobin and red blood count.

Active cases of bacillary dysentery are occasionally found among laborers in Monroe county who have migrated here from the south and the disease is endemic among them to a large extent. Practically all of them, on being questioned, are acquainted with a malady which they term the "bloody flux" and which they treat themselves by means of apples stewed in strong tea and paregoric if they can get it. An attack of this diarrhea is sometimes severe in children and has been found to stop usually in twenty-four hours after the administration of 20 to 30 c.c. of combined antitoxin.

The presence of chronic infection of this type has gradually spread to members of the community who have never been in the south.

Conclusion.—Dysentery bacilli (Shiga, Hiss-Y, Flexner bacillus) may cause severe chronic infection with secondary anemia, malaise, and loss of weight without giving either any demonstrable lesions or symptoms in the gastro-intestinal tract.

Headache and Head Pain

of Ocular Origin*

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■ Two important facts in conjunction with headaches and head pain should be remembered: (1) The eye physician should not divorce the eyes from the rest of the body; and (2) the general physician should not divorce the eye physician from medicine!

Headache is the most common complaint appearing in one hundred histories, either picked at random or consecutively. It is the one complaint that is used by many drug concerns to build up fortunes. There is more treatment for headache than for anything else; more people consult doctors because of this symptom; and many physicians live well because of their ability to ease the run of mine type of headache. It is the great social excuse to evade undesirable engagements and without it many people could not exist.

Because of the variety of pains and aches and the wide range of severity, it is extremely important to allow the patient to tell his or her story. One can frequently judge whether the headache is functional or organic by the manner of telling the story and the amount of time required as well as the measures necessary to relieve a headache.

It is unnecessary to draw any medical man's attention to the constant overuse of the eyes—the almost continuous visual effort from early morn until bed time and then the final chapter of a story under poor light and the day is over. When you consider this fact, you can realize that the eyes must be well prepared, both physically

*Read on September 20, 1938, at the annual meeting of the Michigan State Medical Society, Detroit.

and mechanically, to do the job that is expected of them and this job becomes more exacting daily.

Unilateral Headache

Unilateral headache or head pain is due to the eyes only when a single eye is the causative source. Ciliary spasm, a localized neuralgia, or spasm of a single muscle may be the cause, in the absence of inflammation. With inflammation, we may have iritis, iridocyclitis, uveitis, glaucoma, and other localized inflammatory processes. It is well to keep these in mind for only recently I saw a woman who had severe unilateral pain with a slightly inflamed eye and only slight iritis but a definite low-grade glaucoma. She had been under treatment for nine months and she was completely relieved by eserine salicylate.

Pain from ocular or orbital inflammation is not always localized in the orbit. It is often referred over the side of the head, behind the ear, and down the neck. It need not be associated with the use of the eyes although use tends to aggravate it. However, unilateral head pain is not commonly ocular in origin. I mention it here to draw attention to it as a possibility.

Bilateral Headache

Bilateral pain, whether frontal, vertical, bitemporal, occipital, suboccipital, or over the tip of the mastoids, may be ocular in origin. It may be as mild as a zephyr or as severe as a cerebellar tumor pain and until the patient has been examined by some one who will take the time to do other than hand him a pair of glasses, you are being misled. Supplying a pair of glasses is not a diagnosis nor is it always the answer to the question of headache. Until one can safely say that the refractive error is the cause of the patient's difficulty, the patient is entitled to a thorough study of the muscle balance, a visual field examination, and one or more tension readings as may be required. The patient will be examined as carefully as you wish him to be—the better the examination, the more frequent the right diagnosis.

Nearsighted people do not have headache or head pain unless the nearsightedness is unequal or severe or unless they are abusing their eyes. It is true that people with myopia have difficulty when they are outside looking long distances or when in very bright light, and this exposure may produce headache. We see numbers of people who watch the air races and either forget to wear dark glasses while peering skyward or deem it unnecessary. This may produce severe headache, nausea, and vomiting, and almost complete collapse.

If one takes a nearsighted individual and mixes the nearsighted error with a muscle error, you may have trouble—this is true of farsightedness as well.

Farsighted people are apt to have a frontal headache which is moderate to severe in character and presents itself almost daily in the afternoon or evening. It sometimes is definitely associated with certain types of work. The diagnosis is easy to make and the treatment is a pair of glasses used therapeutically, not as an aid to vision.

If there is an inequality in the amount of error per eye, the pain may be more severe over one eye.

Errors in refraction usually produce frontal, vertical, or bitemporal pain which may be associated with slight dizziness. Nausea is usually relieved by going to bed or resting and a single aspirin tablet, and it is made worse by sewing, playing cards, and other close application.

An error of refraction associated with a muscle error is almost certain to produce symptoms of headache such as pain or nervousness, irritability, exhaustion, nausea, (rarely vomiting except in extreme cases or abuse), loss of weight, et cetera. You cannot be certain about a patient's muscle balance unless the eyes have been thoroughly checked and, further, you cannot be sure of it then if he happens to have some constitutional disease such as hyper- or hypothyroidism, Parkinson's disease, encephalitis, or diabetes.

The Rôle of the Muscles

Muscle operations and exercises are not the total answer. Many patients are improved by proper correction of the eye muscles, either surgically or by treatment, but it must be carried to completion. Halfway measures only tend to increase the difficulty. Patients who gave a history of having had previous eye muscle surgery or treatment should be carefully checked. The nausea and mild gastric upsets so frequently associated with muscle imbalance, as evidenced by car-sickness, shopping headaches, and bridge-

party nervousness, can be benefited, and in those people who have repeated gastric surgery for questionable adhesions, the eye muscles must be considered as a possible cause of symptoms. The oculogastric reflex is an active irritating one and may mislead or cloud the diagnosis. Pain due to eye muscle imbalance is frequently along the superior or inferior nuchan lines or at the tip of the mastoid where the sterinocleiodomastoides are attached. Neck pain is more frequently due to eye muscle imbalance than anything else. The neck muscles function primarily to move the head so that the eyes will be in position to see.

There is a definite periodic increase in head pain of muscle origin. It usually becomes more frequent in October and is well on its way in December, reaches a peak in January and falls off in the Spring when the days become longer and outdoor distance and exercises become the custom.

Prevention in Children

Before entering the first grade, every child's eyes should be refracted under atropine so that he can be protected against abusing a pair of inadequate or deficient eyes. The girl with the nervous breakdown, the child who is inattentive, the person in business who has a headache at noon, is relieved by lunch, and then has a recurrence about three or four in the afternoon, the clock-watcher, the student who cannot concentrate, the convalescent patient who has headache and is reading in bed—these and many others belong to the group of people who have faulty, poor, or inadequate eye musculature. They may require exercises, surgery, or glasses, or all three.

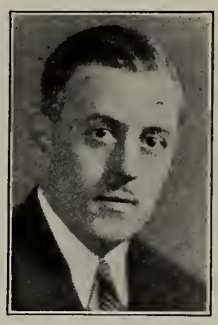
I can also tell you that many of these patients require medical treatment for a deficiency in thyroid or vitamin A. Some have general muscle exhaustion due to menopausal disturbance or some cerebral disturbance. It is well to remember that a patient with ocular muscle imbalance may have his primary disturbance elsewhere, the muscle trouble being secondary and the pain the tertiary portion of the entire picture. **It is well to think of these patients as sick people who need more than a pill—they need careful study and definite management. Anything short of this fails to relieve the pain.**

In closing, let me remind you again that neck pain, gastric upsets, and severe symptoms are frequently due to ocular disturbances. The eyes start out in life with the individual—they may be faulty to start with or they may become faulty through abuse or disease, but they are ever present and constantly abused. They are necessary for the enjoyment of life, and when life reaches the ebb, their use should be a comfort and a pleasure. In order to keep the eyes in perfect condition, every branch of medicine is necessary. A faulty diagnosis may lead to blindness or death, frequently to an unhappy and cantankerous patient whereas with a little care and proper direction, the eyes will carry on without a great deal of trouble.

Sterility

Recent Trends in Its Investigation and Treatment*

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■ The problem of sterility is today of increasing importance as we are learning more concerning the factors responsible for the failure of a couple to conceive. It is not an insignificant problem when we realize that approximately one in every ten marriages is childless. When we consider that the birth rate has decreased markedly over the past twenty years, the problem may also be of sociological significance. This is particularly true, as many of these sterile matings are among those who would make the most desirable parents.

We no longer should think of one individual as being sterile but rather of sterility, or better, infertility, being the result of a given

*From the Department of Obstetrics, Indiana University. Read at the annual meeting of the Michigan State Medical Society, Grand Rapids, September 21, 1939.

mating. We recognize that for conception to occur certain prerequisites must be satisfied. The male must produce a sufficient number of viable, active spermatozoa which can be discharged through a patent generative tract. The female must produce normal ova which, because of the patency and proper preparation of her generative tract, are transported through the tube, and, subsequent to fertilization, adequately implanted in the uterus. In addition, the spermatozoa must reach the tube at a time when the ovum is capable of fertilization.

It is obvious, then, that there may be many causes for failure of conception. In the majority of instances, more than one factor is present and recognition of this fact is essential in the adequate management of sterility. Meaker states that in patients studied by him there was an average of 4.8 causes for each sterile mating. In some cases, one factor may preclude all possibility of pregnancy. In many more instances, pregnancy is prevented by a number of factors, any one of which would not be sufficient to produce sterility. One should be very careful in assigning the fault to either the male or the female alone. Most investigators agree that the major factor is found in the male in approximately one-third of the instances. It is well to remember, however, that it is usually the male who infects his wife with gonorrhea and in that way is responsible for a considerable portion of female sterility.

Causes for Sterility in the Male

The causes for sterility in the male include: (1) Obstruction to the passage of the spermatozoa through the generative tract. In most instances, this is the result of previous inflammatory processes, usually gonorrheal in origin. It may, however, follow such operative procedures as hydrocelectomy and herniotomy. Whenever spermatozoa are not found in the ejaculate it is essential to determine that this is due to the absence of spermatogenesis and not to obstruction. This can be readily determined by testicular puncture. According to Hagner, spermatogenesis will be found in 45% of these cases. (2) Aspermia is an obvious cause of sterility and may be due to endocrine failure, previous orchitis, and, not uncommonly, to a delayed testicular descent. (3) Deficiencies in spermatogenesis are more common than complete aspermia and may be related to the general constitutional states, endocrine disturbances, and perhaps to an overactive sex life. (4) Where spermatogenesis is normal and the generative tract patent, there may be sterility due to the inability of adequate penetration. This may be associated with epispadias or hypospadias, or may be the result of impotence.

Causes for Sterility in the Female

In the female, the more frequently encountered causes of sterility include: (1) Impaired anatomic contiguity of the generative tract. This is usually the result of tubal inflammation due to a gonorrheal infection, subsequent to abortion or other obstetric episode, and may be related to recurrent attacks of appendicitis. It is estimated that the tubes are occluded in approximately one-half of sterile women. Complete, and more frequently partial, tubal closure may be produced by the presence of uterine tumors and occasionally by ovarian tumors. Intra-uterine tumors, such as submucous fibromyomas and endometrial polypi, may impair the patency of the tract to a significant degree. Congenital anomalies are infrequent causes of complete obstruction, but are frequently encountered in the sterile patient. Here they may interfere with the transport of the ovum or with the maintenance of implantation. Bicornuate uteri of varying degree were discovered in 5 per cent of 176 sterile patients reviewed by the author at the Chicago Lying-in Hospital. (2) An abnormal cervical discharge, producing a thick, tenacious plug of mucus within the cervix, may be a barrier to the upward passage of spermatozoa. In most instances, this is accompanied by evidence of cervicitis and is inflammatory in origin. It may be the result of chronic pelvic congestion. Watson has recently suggested that some of these patients may have an estrogenic deficiency and has reported a change in the character of the cervical secretions under estrogenic hormone therapy. (3) A large group of sterile patients show evidence of various endocrine disturbances. This may be suggested by the presence of genital hypoplasia, particularly by a reversal of the normal adult relationship between the length of the cervix and uterine corpus so that the cervix becomes relatively longer. Such individuals may menstruate normally but tend to show hypomenorrhea and oligomenorrhea. The endocrine disturbances in

which ovulation fails to occur are more positively related to sterility. A factor which is often difficult of proof is the possibility of pregnancy failing because of the inadequate maintenance of implantation, presumably due to corpus luteum failure. (4) The general physical health of the woman is also a factor in infertility. There is evidence to show that obesity as well as undernutrition should be considered important in this connection. Anemia may also be of importance. A low basal metabolic rate is frequently found in either partner and, from the therapeutic standpoint, is of definite importance. In the previously mentioned group of patients studied by the author, the basal metabolic rate was below zero in 69.7 per cent and below minus ten in 22.7 per cent.

Plan for Investigation

Investigation of a sterile mating should be performed according to an established plan. The usual definition of sterility states that there should have been failure of conception for one year or more. Many times, however, we are justified in investigation before that period has elapsed, and certainly one is never justified in dismissing a patient without examination simply because she has not been trying to conceive for a long enough period of time to be considered sterile. The usual steps in investigation are discussed in the following paragraphs:

1. A complete medical history should be obtained from each partner in the sterile mating. This should include a history of their general health, with special inquiry concerning diseases of the generative tract and concerning their sex habits. A detailed history of puberty and menstruation should be obtained from the woman. Information concerning pelvic operations and concerning genital infection should be as detailed as possible.

2. A general physical examination is the second step in the investigation for each of the patients. This should include a careful evaluation of the general health with emphasis upon any evidence of endocrine disturbance. Should disease contra-indicating pregnancy be discovered, it should be treated before the routine investigation is completed.

3. Local genital examination follows for both the man and woman. Evidence of previous infection and structural normality, as well as the developmental state of the genitalia, are the points to be investigated particularly. In the female, this should include careful bimanual examination of the internal organs with estimation of their size, position, mobility, and freedom from tenderness. The external genitalia should be carefully examined for their development and evidence of previous infection, as shown by residual thickening in the Bartholin and Skene's glands or the presence of discharge. The cervix should be exposed and its condition, as well as the character of the cervical secretions, noted.

4. The basal metabolic rate should be determined for each of the patients.

In spite of the presence of demonstrable abnormalities during these general procedures, more special tests must be performed. This is equally important when no evidence of abnormality is discovered.

5. The Hühner test, or post-coital examination, is usually the next step in the investigation. The woman should remain lying down for thirty minutes following intercourse and should present herself for examination without having emptied her bladder or bowel and within two hours of the time of intercourse. Specimens for microscopic demonstration of the number and motility of spermatozoa should be taken from the upper vagina, from within the external cervical os, and from the upper portions of the cervical canal. These should be obtained by suction with a clean pipette for each specimen, and before the last specimen is taken the external cervix and vagina should be wiped clean.

6. Special study of the male is indicated in all cases where the Hühner test shows no spermatozoa or where they are non-motile or deficient in number. Hotchkiss recommends that the patient abstain from intercourse for three days. The ejaculate is then collected directly in a wide-mouthed, clean glass container kept at room temperature and delivered for examination within two hours. He describes six steps which should be taken in the routine examination, as follows:

a. Determination of volume. The average is 3 to 4 c.c.; less than 0.5 c.c. is usually significant.

b. Viscosity is subject to wide variation and has little significance if the spermatozoa are actively motile.

c. Determination of p.h. The usual range is from 7.7 to 8.5. Increased acidity decreases the viability of the spermatozoa.

d. The sperm should be motile for twenty-four hours at room temperature.

e. Determination of number of spermatozoa. They are counted, using a blood counting chamber, after their motility has been destroyed with a sodium bicarbonate-phenol solution. The normal count is 100,000,000 to 150,000,000 per c.c.; less than 60,000,000 per c.c. is considered to be associated with infertility.

f. Determination of morphology. This portion of the study is most important and requires considerable knowledge and experience. Detailed description of abnormal forms has been given by Moench. If more than 20 per cent of the sperm cells are morphologically abnormal, sterility will usually result.

7. The patency of the fallopian tubes cannot be assumed even in the absence of evidence of previous infection. Tubal patency may be demonstrated by the Rubin test, which is performed by injection of a gas, usually CO_2, through a tightly fitted intracervical canula. The gas should be injected under controlled pressure, which should not exceed 200 mm. of Hg. and not more than 150 c.c. should be injected. Patency of the tubes is determined by the sudden drop in pressure of the gas, the auscultation of the gas bubbling through the tubal extremities when the stethoscope is applied over the region of each tube, and by the development of a characteristic shoulder pain when the patient stands as the gas rises in the abdomen to the diaphragm. More accurate information concerning the location of an obstruction, the presence of adhesions about the tubes, and deformities of uterine development may be obtained by the introduction of an opaque medium into the uterine cavity and tubes through the same intracervical canula. Usually 5-10 c.c. of an iodized oil is used for this purpose and is injected under fluoroscopic control. Stereoscopic films should be obtained following removal of the canula and again in twenty-four hours to demonstrate the spread of iodized oil throughout the pelvis.

Both the Rubin test and hysterosalpingography should be performed during the days immediately following a menstrual period. They are contraindicated if there is any evidence of activity of a pelvic inflammatory process or if there is uterine bleeding. Neither requires anesthesia and only careful asepsis is necessary.

8. Endometrial biopsies removed at the appropriate times during the menstrual cycle give us invaluable information concerning the endocrine activity of the ovaries. If the endometrium removed during the days immediately preceding a menstrual period or during the first few hours of a period demonstrates a normally developed progestational change, we can conclude that there has been normal corpus luteum formation and activity. Under such conditions we must assume that ovulation has occurred. If the endometrium fails to show a progestational change, we must conclude that either ovulation has failed to occur, or that the corpus luteum formation or effect is abnormal. Such non-ovulatory cycles may result in what appears to be normal menstruation, so that the information obtained by biopsy is invaluable. Israel and Mazer report that such failure of ovulation occurred in 36 of 109 regularly menstruating sterile women in whom no other cause for sterility could be determined.

9. Special endocrine studies may be necessary in a small group of sterile patients concerning whom inadequate information is obtained by the above described procedures. These are usually patients with marked disturbances in the menstrual cycle and often with other evidence of endocrine unbalance.

The plan of treatment for a sterile couple should not be decided until the information obtained by the above investigative procedures has been summarized. Patients should be warned at the beginning of the investigation that it may be several months before they can hope for any positive result and their complete coöperation is essential to satisfactory results.

Methods of Correction

At the completion of the investigation there are usually several factors which may need correction. Obviously, major faults such as aspermia and complete closure of the tubes make the prognosis very poor and any therapy should be directed primarily to their treatment.

General measures may be of definite value. These include adequate rest and a diet rich in vitamins, protein, and minerals. The so-called antisterility Vitamin E has not been demonstrated to be a specific factor.

Tubal closure, particularly if not complete, will respond at times to repeated insufflation with gas or iodized oil and these procedures may be repeated at intervals of two to three months during a year of treatment. The percentage of success is perhaps not great, but one will be surprised at times to find that the apparently hopelessly occluded tube has become patent. Operative procedures may be performed upon those

tubes which do not become patent. These should be considered only when both tubes are closed and there is no other cause for sterility. Greenhill has recently summarized the literature in this regard and reports a 6.6 per cent incidence of pregnancy following 818 plastic operations. Only two-thirds of these pregnancies resulted in live children. The prognosis is better following salpingostomy performed on the closed fimbriated end of the tube than it is following tubal implantation or ovarian transplantation.

The presence of cervicitis with a thick, tenacious plug of mucus in the cervical canal can be successfully treated in most instances with the nasal tip cautery, or in more severe cases, by conization of the cervix. Cervical or endometrial polypi should be removed.

Other operative treatment is usually contra-indicated. Occasionally tumors producing pressure occlusion of the generative tract may be removed. This is true particularly of intramural or submucous fibromyomas which may be removed by myomectomy. Routine curettage of the sterile patient does more harm than good. Surgical correction of retrodisplacements of the uterus is definitely contra-indicated as a treatment for sterility, first, because such retrodisplacements are very rarely a factor in sterility, and, secondly, because they may be temporarily corrected by insertion of a pessary with less risk. Intracervical pessaries are contra-indicated.

Operative procedures on the male may be justified where occlusion of the generative tract is present and adequate spermatogenesis has been proved by testicular puncture. Hagner has recently described several operative procedures designed to overcome occlusion of the vas.

Endocrine Therapy

Endocrine therapy for the sterile couple is a field of treatment in which recent advances give promise of improved results. Litzenberg and others have emphasized the value of thyroid therapy. This should be given in sufficient dosage to raise the basal metabolic rate and maintain it around plus five in each partner.

Recent reports have indicated a definite place for the gonadotropic hormones in the treatment of aspermia and deficient spermatogenesis in the male and in failure of ovulation in the female. The work of Davis and Koff in the production of ovulation in the human and the experimental studies which preceded this work indicate that we have in the gonadotropic substance from the serum of pregnant mares a gonadotropic substance which closely approximates the action of the anterior lobe of the pituitary gland. There are many problems of dosage and time of administration which remain to be settled, but the progress is encouraging. Working with Davis at the Chicago Lying-in Hospital, the author has obtained evidence of the effectiveness of this preparation. In this group of sterile patients with failure of ovulation, experimental evidence indicates that the gonadotropic hormone from pregnant mare serum* should be given during the late proliferative phase with an abrupt increase in dosage at the time when ovulation might be anticipated. In most instances, twenty rat units have been given intramuscularly on the ninth, tenth, and eleventh days following the onset of the menstrual period, with sixty units intravenously on the twelfth day.

Successful therapy with estrogenic hormone has been reported by several authors, including Schneider and Campbell. In general, however, prolonged estrogenic therapy for this purpose is dangerous, as it results in depression of the gonadotropic activity of the pituitary and, in that way, may inhibit ovulation. The use of the gonadotropic hormone is a more logical procedure.

Prophylactic Treatment

As in many other medical problems, prophylactic treatment is of greater general value than the success which is obtained from attempts to cure already existing conditions. Little has as yet been accomplished in this direction, but as the significance of the problem is recognized, a definite approach to the prevention of sterility becomes evident.

One of the opportunities for such therapy lies in the treatment of menstrual disturbances during puberty and the management of delayed adolescence. Correction of such difficulties is usually more readily accomplished at this time, and in this way, the chances of normal development of the generative organs is enhanced.

The premarital examination gives the physician an opportunity to evaluate the prospective couple from the standpoint of many of the factors which have been discussed. The general

*Gonadogen—The Upjohn Company.

physical condition may be determined. Evidence of pelvic disease or abnormality may be recognized and appropriate treatment instituted. The history of functional abnormalities should be elicited and further investigation undertaken. Adequate contraceptive advise may be given and the dangers of abortion thus eliminated. The couple may be instructed in the optimum time for conception and the advantages of early adequate antepartum care emphasized.

Another opportunity for the prevention of sterility is to be found in conservatism in the treatment of genital infections. Many women are sterile because lower genital tract infections were not adequately and cautiously treated, with the resulting ascension of the infection. Many others are sterile because conservatism was not practiced in the treatment of an upper tract infection, but rather the abdomen was opened and one or both tubes removed.

In all gynecologic surgery upon the woman during the child-bearing period, conservatism of ovarian function and preservation of the anatomic patency of the reproductive tract should be the consistent attempt of the operator. Many times the ovaries are needlessly removed and many times the integrity of the generative tract is interrupted without adequate reason.

It is obvious, then, that there are opportunities of great frequency for education and for attempts to aid in the prevention of sterility.

Summary

We have a great deal to offer to the sterile couple. A thorough investigation of the problem is essential if adequate treatment is to be accomplished. The newer methods of investigation and therapy, particularly from the endocrine standpoint, offer an increasing chance of success. The coöperation of the internist, gynecologist, and urologist is often necessary in solution of the problem, but many cases may be successfully managed by the general practitioner. It is better not to attempt investigation and treatment of the sterile mating unless a careful, complete plan of investigation is followed. The opportunities for the prevention of sterility should not be neglected.

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National Physicians' Committee for the Extension of Medical Service

Question

How can a local physician help effectively in achieving the objectives of the Committee?

Answer

(a) Contribute financial support.

(b) Arrange through local medical society to make talks before: Rotary, Kiwanis, women's clubs, or other groups.

(c) Discuss the needs, the aims, objects and methods of procedure with other physicians and at medical meetings.

(d) Discuss financial need with members of clinical or hospital staffs or managements.

(e) Discuss the medical problem, the function and objectives of the National Physicians' Committee with the editor or editors of local papers. Hand them copies of literature and suggest editorial comment.

(f) Distribute copies of "Priceless Heritage" or other literature to patients and influential friends—get their comment, suggestions and financial coöperation.

(g) Aid in forming a state division—keeping in mind that the ultimate objective is to reach every citizen—that he may come to realize his direct interest in the problem of medicine and health.

Ways and Means of Improving Medical Leadership

By H. H. Shoulders, M.D.

"The new problems with which medical leadership is confronted, it seems to me, deal with the matter of technic all along the line. At least some of these problems have had origin in two sources. The economist and the sociologist arrived on the American scene and in the medical field. In many instances both had the prestige attached to a Ph.D. degree. They were armed, too, with statistical data and fanciful theories. They were implemented by propagandists. They have made the position of medical leadership rather difficult. By their activities they have diminished, and in some instances almost destroyed, the faith of the public in the medical leadership which accomplished so much for the public welfare before the arrival of the expert economist and expert sociologist. They very cleverly took advantage of the fact that we all enjoy faction more than we do facts. Fascinating theories, couched in cleverly-formed phrases, uttered by a well-cultivated voice, make a stronger public appeal, in many instances, than the calm logical voice of experience. By agitation there has been created a situation which approaches a stampede. Some of our fine health departments, with fine records of service back of them, have been influenced in some degree to make of themselves the dispensers of charity rather than the administrators of executive functions."—*Tennessee State Medical Association Journal,* January, 1940.

Clinical Pathological Conference

Staff Conference
Department of Internal Medicine

University Hospital, Ann Arbor
Service of Cyrus C. Sturgis, M.D.

R. C., No. 365246, aged fifty-four, white, female, was readmitted February 23, 1939.

History.—The patient was first admitted July 26, 1935. She had not felt well from the time of the birth of a child in 1922 until 1935. Since 1926 she had noticed gradual increasing slowness in thought and memory. Her movements became sluggish, her skin dry, with some sweating only on the forehead. No change was noted in her hair or nails. There was some pitting edema of the ankles, and there was marked puffiness beneath her eyes.

She also complained of a painful swelling in the left mandible two months before the first admission. Examination showed puffiness of the face with a 4 x 5 cm. swelling on the left mandible. The skin was pale, dry, rough and inelastic. The hair and nails were dry but not brittle. She talked slowly and her voice was hoarse. The heart was enlarged 22 per cent in area by orthodiagram. She was given 32 mg. of thyroid b.i.d. This was increased in one week to 32 mg. q.i.d. The basal metabolic rate had only increased from —31 per cent to —22 per cent, and at the end of thirty days the medication was increased to 0.2 gm. daily. On this regimen the basal metabolic rate increased to —5 per cent and she was discharged on October 2, 1935, on 0.2 gm. thyroid daily. The mass in the left jaw was found to be spindle cell sarcoma and she received x-ray therapy to that area.

She was readmitted in January, 1936, having discontinued thyroid therapy for one and one-half months. Her symptoms had recurred. She was again given 0.065 gm. of desiccated thyroid t.i.d. The basal metabolic rate increased from —39 per cent to —8 per cent. She then had a resection of the left ramus of the mandible and was discharged on 0.128 gm. of desiccated thyroid daily. She has been seen repeatedly in the out-patient department since for check-up examination.

Four months ago she developed pain in the left scapular line at T 12 which was sharp, severe and not related to respiration, and which lasted for minutes or for hours and radiated to the front.

Physical examination.—The patient was an obese adult white female. The conjunctivæ were injected. The left ramus of the mandible was missing. The skin was warm and moist. Point of maximum impulse of the heart was 9 cm. from the midsternal line in the fifth intercostal space. There had been diminution of the superficial pain since admission, in area of T 11-12 on the left. The remainder of the physical examination was essentially normal.

Laboratory data.—7-29-35, blood studies: RBC 2,680,000 per cu. mm.; WBC 7,400 per cu. mm.; Hb. 65 per cent; reticulocytes 4 per cent. Differential: Polymorphonuclear neutrophils 79.5 per cent; large lymphocytes 10.0 per cent; small lymphocytes 4.0 per cent; monocytes 5.5 per cent. Price-Jones curve: red blood cells measuring less than 7.5 microns 23.0 per cent; 7.5 microns, 37.0 per cent; larger, 40.0 per cent. 9-4-36: RBC 2,530,000; WBC 6,400; Hb. 70 per cent. 2-23-39: RBC 4,010,000; WBC 7,350; Hb 84 per cent; Polys. 66 per cent; lymphs. 25 per cent; mon. 7 per cent; bas. 1 per cent. Urine examination showed occasional traces of albumin but was otherwise negative. Kahn test negative. Basal metabolic rates as follows: 7-29-35, —29 per cent; 7-31-35, —31 per cent; 9-6-35, —5 per cent; 9-4-36, —39 per cent; 9-14-36, —8 per cent; 1-29-37, —29 per cent; 5-28-37, —1 per cent; 12-13-37, —21 per cent; 2-26-39, +11 per cent. Electrocardiogram, 2-29-35, small complexes, slight left axis deviation with inverted T-waves in Leads I and II. X-rays show no evidence of metastases to the ribs.

Discussion

Dr. Cyrus C. Sturgis: This patient has now completely recovered from myxedema but her clinical history serves to emphasize some important points in regard to this disease. All of the classical signs of the conditions have now disappeared following treatment. At present she perspires normally and has had a moderate regrowth of hair over the body. When first seen the typical lethargic mental state was present with impaired memory and it was impossible for her to do even the simplest household duties. Her response to medication has been very satisfactory with the exception of one relapse which resulted when she discontinued the desiccated thyroid gland on her own responsibility. Despite all warnings against this, it is likely to happen in almost all patients with myxedema unless they are kept under observation. Dr. Cooper, do you have some data about the literature?

Dr. Ralph R. Cooper: The first person to use thyroid gland substance for the treatment of myxedema was George R. Murray, who obtained his ideas from the previous work of Kocher and Horsely on the observation of artificial myxedema after thyroidectomy.

Sturgis and Whiting believe that the thyroid medication in myxedema should be given in two stages: the initial dose to restore the patient's basal metabolic rate to normal, and then a maintenance dose. In an adult the average dose should be 0.13 gm. three times a day until the basal metabolic rate reaches —10 per cent to —5 per cent, usually in four or five days, after which an average dose is 0.12 gm. daily. During the early stages of treatment the basal metabolic rate, resting pulse and weight should be followed carefully. The average patient loses ten to fifteen pounds within the first month or two of treatment.

The patients who show evidence of cardiac disease, anemia, or renal damage should be given smaller doses with caution. Frequently they must receive a transfusion and be digitalized before administration is started.

Alfred Koehler, on the other hand, believes that starting wtih minimal doses of the drug and gradually increasing to the optimal doses of the drug

is better because it allows the patient to avoid the initial upsets due to sensitivity or overdosage.

The thyroid preparations are standardized by means of the "acetonitral reaction," consisting of increased resistance to acetonitral in white mice that have received thyroid. Although this method is not entirely satisfactory, it is claimed by some that the physiological action of thyroid prepartions tested by this method closely parallel the iodine content, and by it small amounts of added iodides can be detected.

Lerman and Salter tested the effects of various thyroid preparations and found that 0.1 gm. of Armour's desiccated thyroid is calorigenically equivalent to 0.1 gm. of Lederle's desiccated, or 0.065 gm. of Parke Davis desiccated thyroid, or 0.32 gm. of Burroughs and Wellcome's *fresh* thyroid.

Fahr described the "myxedema heart" as characteristically having dilation of all chambers, with sluggishly moving borders so that by fluoroscopy it resembles a moderate pericardial effusion. There is absence of negativity of the T-waves in Lead I. As the patient improves, the waves become diphasic and then upright. In a few cases there is a split and prolonged QRS group due to intraventricular delay, and a negative QRS group in Lead III.

Frank N. Wilson, on the other hand, states that myxedema and hypothyroidism may be associated with hypertension, nephritis, and arteriosclerosis or a combination of these, and consequently with the types of cardiac disease to which they give rise.

Henry Christian emphasizes the fact that the interplay of three factors—the metabolic activity, anemia and cardiac efficiency—must be taken into consideration in treatment. In some patients with considerable cardiac damage, it is necessary to leave them in the myxedematous state. Frequently in patients with angina pectoris, the number of attacks will be increased while taking thyroid.

C. H. Davis found 51 per cent of women in a series of routine basal metabolic rates on patients coming in his clinic, had a basal rate below —10 per cent. Thurman and Thompson believe that if the basal metabolic rate is above —21 per cent there is no thyroid dysfunction.

Dr. Sturgis: The first person to administer thyroid gland to a patient with myxedema was Dr. George Murray, who read his paper on "The Treatment of Myxedema by the Hypodermic Injection of an Extract of the Thyroid Gland of the Sheep," at a meeting of the British Medical Association in July, 1891, and this was published in the *British Medical Journal* October 10, 1891. About one year later (October 29, 1892) there appeared two papers simultaneously in the *British Medical Journal,* one by Dr. Hector MacKenzie and the other by Dr. E. S. Fox, which reported the beneficial effects of thyroid medication given orally to patients with myxedema. It is interesting to note that almost thirty years later Dr. Murray reported the autopsy findings in his patient who was first treated with thyroid gland.

One difficulty in the treatment of patients with myxedema is the variation in potency of various preparations of desiccated thyroid gland. One reason for this is that we lack a satisfactory method of testing this substance for potency. If a physician prescribes "Desiccated Thyroid Gland" without specifying a specific brand, the patient may receive a potent product on one occasion and, at another time, a preparation may be dispensed which is over one-third to one-sixth as strong. As a result, a good deal of haphazard thyroid gland therapy is given. For many years, I have used the same brand of desiccated thyroid substance which has never varied in potency, and satisfactory results have been obtained. This is because I know by clinical trial just what it will accomplish.

With the preparation which I employ it usually requires about one grain three or four times daily for a period of one to two weeks to increase the basal metabolic rate to the proper level, although there is considerable individual variation in the response of patients. The only satisfactory plan to follow is to give a reasonable dosage and note its effects by repeated observations of the basal metabolic rate, the resting pulse rate, and the loss of body weight. In patients with an anemia or definite cardiac involvement, the preparation should be administered with caution.

The basal metabolic rate should be brought from its initial low point to the vicinity of —10 per cent, because when the readings are higher than this, disagreeable symptoms such as dyspnea, palpitation and a feeling of increased warmth may be present. Once having reached the proper level, the basal metabolic rate can usually be kept there by the daily administration of 1 or 2 grains of the product which I have been accustomed to prescribe.

I should like to point out that this patient relapsed because she discontinued the medication. This almost invariably occurs in patients with myxedema despite the specific warnings given by a physician to prevent it. The reason for this is that patients are likely to discontinue treatment of any disease when the symptoms have disappeared. Upon discontinuing medication, the symptoms do not recur suddenly but reappear only after a period of six weeks or longer. In my experience the patients usually do not return for treatment until there is an obvious reappearance of the characteristic evidence of the disease.

It is regrettable that the diagnosis of the condition is so often overlooked because such remarkable results can be obtained by specific medication. Some years ago, I reviewed the histories of a group of patients with myxedema, and found that the condition was not recognized in a single instance before admission to the hospital although the patients often had been seen by several physicians. The reasons

for the failure to recognize the disease are (1) the failure on the part of the physicians to keep the disease in mind. It is not a common condition, but it does occur more frequently than the average physician suspects. (2) Due to the lethargic state of the patients and their impaired memory, it is almost impossible to obtain a reliable history during a relapse. The diagnosis usually must be made by the appearance and general demeanor of the patients, followed by the eliciting of further information in response to definite, pertinent questions.

Without attempting to enter into the details of the diagnosis, let me say that one of the most constant symptoms of the disease is absence of sweating. This has been an evidence of the disease in almost every patient whom I have seen. Upon careful questioning, it is usually found that these patients do not perspire, even on the warmest summer days. This symptom is important because it is so striking and does not occur commonly in other diseases.

It should be emphasized that the disease may be confused with pernicious anemia, nephritis and heart disease. A macrocytic anemia similar to pernicious anemia may be present and also an achlorhydria. The diagnosis of nephritis may be suggested because patients with myxedema usually have a "puffy" appearance about the face and there may be a trace of albumin in the urine. The diagnosis of heart disease is suggested in some patients and that of the underlying myxedema may be overlooked. It has long been recognized that a condition known as myxedema heart does occur. It is characterized by a uniform enlargement of all four chambers of the heart which disappears with the use of thyroid therapy. It has been my experience that coronary artery disease is not uncommon in myxedema because this disease, like diabetes, is often associated with extreme arteriosclerotic changes. I have seen two patients with myxedema die suddenly of coronary thrombosis during the course of treatment with desiccated thyroid, and one patient who developed attacks of angina pectoris when his basal metabolic rate was increased by means of this substance. In this latter patient, after many ways of observation and shifting of the dosage, it was found that he was reasonably free of the symptoms of angina pectoris and his myxedema fairly well controlled when his basal metabolic rate was in the vicinity of —20 per cent.

Dr. T. Haynes Harvill: In the South we get appreciably lower basal metabolic rates than we do up here; —15 to —18 per cent are commonly encountered in patients who do not have myxedema symptoms.

Dr. L. H. Newburgh: I wonder if this can be explained by undernutrition?

Dr. Harvill: The patients I have seen present no problem of undernutrition.

Dr. Sodeman: We observed a group of 200 patients who were admitted to the hospital with the complaint of nervousness, and determined their basal metabolic rates. The majority were distinctly low. Trained subjects in the South have a lower basal metabolic rate than the trained subjects of the North. The question of undernutrition was also eliminated in the above cases.

Dr. Sturgis: As evidence of the effect of undernutrition on the basal metabolic rate, let me take the case of a patient now on the Medical Service. She has lost 55 pounds in weight and has a basal metabolic rate of —30 per cent. Undernutrition as an explanation of a low basal metabolic rate should always be kept in mind.

Dr. William D. Robinson: It is the opinion of many authors that frequently patients with myxedema require lower dosage of thyroid to maintain their rates within normal range in the summer time than in the winter.

Dr. Sturgis: This has not been the case in my experience.

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President's Page

LAY EDUCATION AND POSTGRADUATE COURSES

TWENTY years ago the Michigan State Medical Society initiated the movement which led to the formation of the Joint Committee on Health Education—its purpose "To present factual information on health matters to the lay public." Today, through many different channels, pour streams of information on health matters, and the public is avid for this information.

The newest activity in this program is the employment of competent physicians for field instruction. In this our Society coöperates with the State Department of Health by sponsoring the work of the field representatives and giving financial aid. The physician must keep pace with this program for the education of the public. He must be prepared to discuss intelligently with his patient the last health talk given before the Grange or the P.T.A., and to apply to the individual patient the advice or instruction there given. If, by lack of knowledge or lack of interest, he fails his patient, the reflection is not only upon him, but upon the whole medical profession.

Here, then, is a very special reason for our postgraduate courses. They are not planned *just* for the general practitioner, but our Society has always recognized that it can have no more important objective than helping the general practitioner to continue his education. The Spring Course is about to begin. Your patient has been going to these health lectures. He will expect *you* to attend these Postgraduate Conferences.

Burton P. Corbus

President, Michigan State Medical Society.

EDITORIAL

THE AMERICAN WAY

■ The *Detroit Times* of December 29, 1939, editorializes on "Hospital Services Obligation of U. S." Particularly of importance in the editorial are the following statements:

"The government's part in promoting public health should be thoroughly constructive and coöperative.

"It should not be autocratic or dictatorial.

"It should not make doctors and the practice of medicine agents or functions of the state.

"It should not herd the people like sheep into government institutions which are more political than humanitarian.

"But neither should it let entire communities be without adequate facilities of hospitalization and public health.

"It should not let factors of isolation or economic circumstances, either of community or individual, bar any part of the American people from the advanced agencies of health and happiness which exist in abundance in our enlightened land."

A further quotation, "Doctors and surgeons are no better trained or more highly specialized anywhere than they are in the United States.

"It is to be hoped the President of the United States has an American solution of the problem."

The question is often asked by our critics as to what is the "American way."

The writer of this editorial has given the most practical statement of the "American way" that is possible. Application of these principles not only in medical problems but also in other problems cannot help but guarantee to us the continuation of our own traditional freedom and advancement.

CONDENSED ARTICLES

■ One of the annoyances of legitimate medical publications is the "throw-away" digests, the editors of which cull over the various state and national journals and print condensations of some of their articles as a means to attract all types of advertising.

While our material is copyrighted still this is not a sufficient protection against rewording and printing the articles. This Journal is offering a plan to the other journals, which have been the victims of this practice, and if successful, we will devote a few pages every month to condensed prominent articles from other state and national journals. This is in line with the policy of The Journal of the Michigan State Medical Society to provide an instructive readable magazine of practical value. Suggestions from any reader of ways to improve the Journal along these lines will be gratefully received.

INDUSTRIAL HYGIENE IN AUTOMOTIVE MANUFACTURING

■ The committee on industrial health of the Michigan State Medical Society together with various experts in the field of industrial health have produced the following program for this project in Michigan.

1. To make a survey of the facilities now in existence to meet the problem of industrial health. This survey is to be made by the counties.

2. Concentration of our effort upon the development of an appropriate educational program depending somewhat upon the specific health problems existing in the various communities of the State. This will include coöperation of medical schools and the State Medical Society together with the State Health Department in proper undergraduate and postgraduate instruction in industrial health.

3. Coöperation with the official health agencies in acquainting the medical profession with the laws with reference to reporting of occupational diseases reportable under the Occupational Disease Act, and all other diseases which are made reportable as a general health measure arising out of occupation.

4. After the profession is prepared by these programs local committees on industrial health should be appointed whose function it will be to study their own local problems and coöperate with the official health agencies to promote industrial health and hygiene methods in the con-

trol and treatment of diseases arising from exposure in industry.

Your Part

An important step in the program should be the appointment of local committees to study the problem of industrial health in their own communities. We believe that the most would be accomplished by the local committees. It is also believed that most benefit will accrue to industry, both employer and employee, as well as the medical profession, by a coöperative program, and the program must be coöperative between industry, health departments and the medical profession if the best results are to be attained.

Industry, local health departments, and committees from the Medical Society must meet and work out their local problems having to do with industrial health.

The employer at this time claims that this is not his problem although it is of importance to him. While the employer has not said so, it is easy to see that if these problems are not adequately met by our profession the employer might become compelled to handle the problem himself. I am certain that will never be necessary. It goes without saying that if the medical profession coöperates to the fullest extent with industry, and industry in turn coöperates with the profession, it will be of mutual benefit.

The officers of the State Medical Society are very anxious that this program be carried out to the fullest possible extent for the reason that they feel it is of great importance to the profession and especially to the general practitioner.

PRICELESS HERITAGE— SECURITY AND HEALTH

The American people have a Priceless Heritage. It is not shared by people of any other nation. It belongs exclusively to the people of the United States.

This inheritance sets the American people apart from all other people in the world. It has given them advantages so great that most minds fail to comprehend them.

By virtue of this greatest of all gifts, one hundred thirty million Americans have more than twice as many automobiles as are owned by the other two thousand million human beings that inhabit the earth.

By virtue of it, with one hour of labor, an American workman can buy twice as much bread as can an English or French workman and four times as much as can a German workman.

By virtue of it, a child born into the home of an average family will live years longer than will a child born into a similar home in any other great nation in the world.

In the short span of one hundred and fifty years it has brought to the American people 9/20ths—45 per cent—of all the tangible wealth in the entire world.

Surely, this is a Priceless Heritage!

Prospect of Loss

Yet, because the American people do not fully understand its working—because they are unable properly to appraise its value—there is the prospect, or at least the possibility, of its forfeiture.

Heritage Defined

This Priceless Heritage was—and is—a "Right."

This greatest of all gifts—the advantage that belongs almost exclusively to the American people—is:

"The right to think without restraint and to voice thoughts with words without limitation or restriction."

Greatest Blessing

The greatest of all blessings is—health.

Greatest Miracles

This priceless gift operating in the field of medicine wrought its greatest miracles. Free men, with fearless minds, founded medical schools and colleges and established laboratories for study and research. There was ceaseless probing and searching into the unknown for the purpose of conquering disease. They continuously improved institutions of learning, hospitals and laboratories. They progressively provided a higher and higher quality of medical service to the people. What it accomplishes is more important than what is said about it. The final result speaks for itself.

In the short period of one hundred and fifty years, in the United States, the number of years a man will live has been nearly doubled. The life expectancy of man was thirty-five years. It is now sixty-two years.

During this period, typhoid fever has well nigh disappeared; smallpox has been robbed of its terror; diphtheria has been conquered; pernicious anemia, tuberculosis, diabetes, and a score of lesser ailments have been brought under control.

American Medicine gave to the United States, in the calendar year of 1938, the most favorable health record of its one hundred and fifty years' history. It resulted—in 1938—in the highest general level of health and the lowest death rate ever known in the United States, or for any comparable number of people anywhere in the world.

The Major Move

A persistent campaign covering a period of twenty years has culminated in what has been called "The

National Health Program" and "The Wagner National Health Bill."

These must be recognized for what they really are. They are moves toward the establishment of political control. They embody the menace of the step by step process of destruction of the system of medicine and medical practice that has given this nation the highest level of health the world has ever known.

Progress Hampered

Encroachment of government in every field of endeavor invariably hampers progress. There is no security in WPA—only provision for the immediate need. The sense of security vanishes in direct ratio to dependence on government and the fear induced by political domination.

Encroachment of government in the field of medicine and medical practice can lead only to progressive deterioration. It will lead to a creeping paralysis that will place the health of every individual in jeopardy.

The American people should demand from all legislators—senators and congressmen—their views on health legislation. They must demand legislation that will aid instead of hamper. Support must be given to doctors, dentists, nurses, hospital groups, pharmacists and all interested in extending medical service to every one who needs it. This must be on a basis which will preserve the essential pattern of a free and progressive medical profession.

This kind of support is essential if the American people are to continue to move forward on the path toward the conquering of disease.

Vital Necessity

Whatever else may happen, in the field of medicine the Priceless Heritage must be preserved. Scientists, physicians and those who provide drugs and medicines must be maintained as free men—with fearless minds.—National Physicians' Committee for The Extension of Medical Service.

TRENDS IN THE MARCH OF MEDICINE*

"Until a few years ago our profession was allowed to go along with its normal development without the hazard of outside interference; this was especially true before the World War. Then all at once the sociologists and others not intimately connected with medicine began to analyze, and in some instances find fault with the medical profession. They said we were not rendering a full medical service to the citizens of this country despite the fact our morbidity and mortality rates were as low or lower than in most other countries. In some instances they softened their criticism with statements saying the people could not afford to pay for adequate medical and hospital care, at least a great majority of them could not. Finally, these reformers were joined by others, mostly labor groups, whose minds possessed socialistic trends, and pressure was brought on United States government officials to take cognizance of this so-called national problem—termed inadequate medical care.

"Perhaps I should remind you that these socialistic minded persons ignored the activities of county medical societies, state medical associations and the American Medical Association, all of which have all of these years sponsored and sought support of every movement for the advancement of medical education, medical practice, expansion of public health services, and the improvement and standardization of hospitals and other institutions which care for the sick, the insane, the crippled and the blind. Also, they forgot that ordinary shelter, ordinary clothing and ordinary food were just as important in the "adequate medical care" program as are physicians, nurses, hospitals, drugs and other medical supplies. Indeed, every physician knows that his patient must have the so-called essentials to life before much progress can be made with any sort of medical care.

"What has been said about the distribution of physicians can also be said in regard to the distribution of hospitals. In Georgia most of our hospitals are located in twenty counties, and yet when one examines a map showing their location he finds only two areas in the State which might suffer from inadequate hospital facilities.

"Of course, much of the discussion regarding the distribution of physicians and hospitals, whether adequate or inadequate, can be settled by determining whether or not a given community will support either, or both. Such support must include moral as well as financial. Hospitals at their best are poor financial risks as private enterprises, no matter how much support they have. In our State, with its one hundred fifty-nine counties and many small towns, no provision was made until recently to aid our hospitals for the care of the indigent sick. As many of these institutions have been operated as private enterprises, the owners had to take the financial loss when indigent patients were hospitalized. Often the owner of the hospital was the physician in charge of the patient and was compelled to give him medical care, which meant additional financial loss. At the recent session of the General Assembly an enabling bill was enacted which will permit counties to levy a tax for the medical and hospital care of their indigent sick. With this assistance from taxes, every county in Georgia can now contribute to its own community hospital, or some nearby hospital, for the care of this class of patients. Through coöperation with county medical societies, some counties can, and should, build hospitals as the needs arise. If sufficient physicians are not now available in some communities it is quite certain that desirable men will locate where adequate workshops (hospitals) are provided. Of course, it will be possible for two or more counties to combine their hospital program. In the larger towns, especially in the industrial areas, group hospital insurance is now available and will, I hope, help both the prospective patient and the hospital in solving their financial problems."

*Editorial by Edgar D. Shanks, M.D., of Atlanta, in The Journal of the Medical Association of Georgia, page 441, December, 1939.

✶ YOU AND YOUR GOVERNMENT ✶

STATE GOVERNMENT PAYROLL AT ALL-TIME HIGH

"Claims of economy in state government are conclusively refuted by payroll figures recently published," says Ernest T. Conlon, General Manager of the Chamber of Commerce of Michigan. He added that payrolls are at an all-time high with every probability of their being increased instead of lowered.

The figures show that in 1933 the state payroll amounted to $14,566,849, contrasted to $25,623,007, in 1939.

"During the past seven years, the payroll has been jumped $11,056,158," stated Conlon.

BASIC SCIENCE LAWS DECLARED CONSTITUTIONAL

The Circuit Court of Wayne County upheld the constitutionality of Michigan's Basic Science Law, passed by the Legislature in 1937. Suit and injunction was brought against the Basic Science Board by George and Marie Timpona, chiropractors.

The judicial opinion of Judge Vincent M. Brennan was published in toto in the *Detroit Legal News* of January 24, 1940, and declared in part: "It cannot be denied that the purpose and effect of the act are salutary. It is another step forward in the movement, which has received frequent legislative endorsement in recent years, to protect the public health by requiring those who undertake to cure human ailments to be well qualified in their various professions. The purpose of this act is certainly in conformity with high public policy when it insists that practitioners be well grounded in those rudimentary scientific subjects which underlie the main healing arts."

Counsel for plaintiffs in their brief relied particularly upon the fact that the statute exempts from its operation prospective dentists. The court, after giving consideration to the authority cited and to the arguments of counsel, held that Act 59 of the Public Acts of 1937, known as the Basic Science Law, is constitutional and valid.

Other States.—The result of a suit, recently started by an Arkansas chiropractor, has been reported in the *Arkansas State Medical Journal:* The Arkansas Basic Science Law was also declared to be constitutional.

Basic Science laws similar to Michigan's, and in some cases almost identical, have been enacted in the District of Columbia and in the following states: Florida, South Dakota, Colorado, Oklahoma, Arizona, Iowa, Arkansas, Connecticut, Minnesota, Nebraska, Oregon, Washington and Wisconsin. No statute has been declared unconstitutional in any court of last resort; but on the other hand, in four jurisdictions (Michigan, Arkansas, Washington and Minnesota) where such acts have been attacked upon constitutional grounds, they have been upheld.

Attorneys D. Hale Brake of Stanton and Earl W. Munshaw of Grand Rapids, successfully represented the defense in the Michigan litigation.

MICHIGAN USE TAX— RED TAPE

More red tape on doctors of medicine will result from the Michigan Use Tax, unless physicians insist that out-of-state concerns from which they purchase materials and supplies add the tax to their invoices and remit same directly to the State Board of Tax Administration in Lansing.

The deadline for payment of the Michigan Use Tax has been set as February 29, 1940, after which a penalty of 25 per cent of the tax will be levied on delinquent Use Tax payments. This tax must be paid on all purchases of drugs, equipment, books, instruments, etc., made from November 1, 1937, to date. It is suggested by the State Board of Tax Administration that these reports, if not already filed, be filed one for the last two months of 1937, one for the year 1938, and one for the year 1939. Appropriate blanks may be obtained from the Use Tax Department of the State Board of Tax Administration.

The only way to avoid the necessity of filing a tax for every month in future is to make cer-

tain that all of the out-of-state concerns whom you patronize have registered with the State Board of Tax Administration, and that they add the tax to their invoices and remit directly to Lansing. This would represent little additional labor for the manufacturer or dealer, but eliminates monthly reports and a lot of red tape for the doctor of medicine.

FEDERAL HOSPITAL PLAN— NEW WAGNER BILL

The hospital building program bill, introduced into the U. S. Senate on February 1 by Senator Robert F. Wagner of New York, is hailed by the *Journal of the American Medical Association* as a recognition of the local character of most problems of medical need.

The *Journal* says: "Here is a new pattern not observable in other medical or hospital legislation introduced in recent years. This measure provides for assisting state, county, health and hospital districts or other political subdivisions; thus it recognizes the local character of most problems in medical service. The total sum involved is relatively small, indicating the experimental nature of the proposal. The third section indicates that communities applying for such hospitals must establish the existence of need."

The *Journal* suggests that more responsibility and control than is provided for in the bill be vested in the national advisory council of leading medical and scientific authorities, set up to advise the Surgeon General of the United States Public Health Service.

The editorial, President Roosevelt's message to Congress, and a copy of the Wagner Bill appear in the J.A.M.A. of February 10.

THE NATIONAL YOUTH ADMINISTRATION IN MICHIGAN

The NYA is a federal agency which attempts to provide training and employment for unemployed youths between the ages of eighteen and twenty-five. These boys and girls are mainly from welfare families.

In Michigan, the NYA has eleven camps (eight for boys and three for girls), and fifty-six training centers. Twenty-four hour residence is required in the camps. The youths combine work with practical training, for which they are paid $30.00 a month; the price of bed, board and material is deducted from this sum. No youth is kept longer than eighteen months.

The training centers are activities maintained in coöperation with boards of education and other local public agencies.

Medical Care of NYA Youth

Medical care is provided for NYA youths who are injured or become ill during their employment. This compensation insurance is a part of the United States Employees' Compensation Insurance, and since December 1, 1939, has been handled directly by the NYA; it was formerly under the WPA compensation department. The same rules apply to NYA compensation as to WPA or any other U.S.E.C.C. compensation: the patient is given his own choice of physician, if possible; if he has no family physician, the rule is to rotate physicians so that each will receive an equitable number of calls.

Hospitalized cases, in case of emergency, go to the nearest approved hospital and remain until the physician certifies that the patient is able to be moved to a federal hospital. According to the federal law, all cases requiring hospitalization for a long period of time are required to be sent to a U. S. government hospital, if there is room available in said hospital.

Non-compensable Cases

Up to the present time, no physical examination of youths admitted to the camps or training centers is provided, although NYA officials are considering the advisability of requiring a physical examination of all who are admitted to NYA, in order to eliminate bad physical risks. However, there is no financial provision for the examinations, or for any necessary medical follow-up of defects uncovered by the health inventory.

The Michigan State Medical Society has offered its technical help and advice to NYA officials in Michigan to develop this latter phase of medical work for NYA youth. It is felt, however, that provision of funds for a physical examination, without adequate arrangements for correction of defects uncovered, would result in conditions more serious than existed in the first place: the development of neuroses and

other mental disturbances, the result of worry over a subnormal physical condition.

POSITIVE VENEREAL DISEASE REPORTS TO LOCAL HEALTH OFFICERS

Michigan Department of Health laboratories hereafter will send copies of reports of positive findings of syphilis and gonorrhea to the local health agency concerned under a new policy adopted by the State Commissioner of Health. This action was recommended by the Syphilis Control Committee of the State Medical Society and has been approved by the Council of the Society.

Such reports will not be considered public records by the local health officer. Receiving such reports will enable local health officers to maintain more accurate records and follow-up of venereal disease cases occurring in their jurisdictions.

National Physicians' Committee for the Extension of Medical Service

Question: Why is there a need for any new organization. Why cannot all of this work be done by the American Medical Association?

Answer: There are definite reasons:

(1) The American Medical Association has performed and performs its invaluable service to the profession and the public on the basis and by virtue of broad-gauge, long-range planning. The present need is for speedy adaptation to a set of conditions that are constantly changing and varying widely according to areas involved. The A.M.A. could lose much of its prestige and materially lessen its effectiveness by attempts at adaptations to meet emergencies or by changes of policy on the basis of expediency.

(2) By virtue of its charter provisions and its program of operation over a period of more than ninety years, the A.M.A. has been accorded the status of a non-profit, scientific, educational foundation. As such, it has been granted exemption from Income and Social Security taxation. A departure from established practice would in in all probability, entail the forfeiture of this status. This, in turn, would entail exorbitant taxation and lead to really serious complications.

(3) There are individuals and many lay groups that are as vitally affected by the immediately present trends and who are as much interested in the solution of the problems as are the physicians. The task is a gigantic one. The support of all interested in the solution should be enlisted. The American Medical Association, as such, could not ask for nor accept financial support from many of these. As a case in point, the findings of the Council on Pharmacy could not be kept free from suspicion if the A.M.A. were accepting substantial contributions from a drug manufacturer.

No one of these reasons would be sufficient, but the combination of all of them makes it obvious that the A.M.A. could not assume these new responsibilities without the practical certainty of serious complications and loss.

The National Physicians' Committee for the Extension of Medical Service actively seeks the moral and financial coöperation of individuals and groups interested in the problem. It has assumed the great responsibility of attempting to coördinate the interests and activities of all interested in finding a practical solution.

The following editorial from the *Chicago Medical Society Bulletin,* December 1939, is of particular interest since it so completely demonstrates the success of health measures of the American form of medical service:

YOUNG LIFE SAVED

Perhaps the most striking and impressive result of public health work and preventive medicine generally during the last 20 years is the remarkable shift in the volume of mortality from the younger to the older age groups. The number of deaths among persons at each year of age under 40 was substantially lower in 1938 than it was in 1918. Of course 1918 was the great influenza year but even after subtracting all deaths attributed to influenza in that year, there were 42,274 fatalities among persons under 40 years of age against only 17,172 in 1938, a reduction of 25,102 or nearly 60 per cent.

On the other hand, deaths among persons of 40 and over went up from 45,447 to 68,493, an increase of 23,046 or somewhat more than 50 per cent. Exclusive of deaths in 1918 attributed to influenza, the number of deaths in this age group was 42,750 in that year, which affects the general shift in mortality but little. The recorded number of deaths in Illinois among various age groups was as follows:

Age	1918	1938	Decrease or Increase	Flu 1918
Under 1	13,109	5,017	—8,092	668
1-19 yrs.	15,933	4,030	—11,903	3,979
20-29	12,599	3,259	—9,340	4,033
30-39	13,070	4,866	—8,204	3,757
40-49	9,276	9,805	+529	1,212
50-59	9,857	13,147	+3,290	610
60-Up	26,314	45,541	+19,227	875

It may be seen that a much greater proportion of the population now live at least until the 40-50 decade of life than was the case 20 years ago. This trend has significant economic as well as social implications. More people live through the main productive period on the one hand while a larger and larger percentage reach "old age" level. The continuation of this process, and there is every reason to believe it will continue, gives an outlook for a rather rapid increase in that element of the population at the "old age assistance" level.

The big inroads against mortality among the young have resulted chiefly from successful efforts at the control of several communicable diseases. Deaths from some of these were as follows:

	1918	1938	Decrease
Tuberculosis	8,579	3,684	4,895
Infantile diarrhea	4,284	430	3,854
Diphtheria	1,142	120	1,022
Whooping cough	696	169	527
Typhoid fever	533	59	474
Smallpox	14	1	13

Mortality from practically every cause is now at a lower rate among the young than two decades ago.

YOU AND YOUR BUSINESS

U. S. TAX ON UNPAID ACCOUNTS

A new ruling of the U. S. Board of Tax Appeals illustrates the unusual income tax liability that will confront the estates of physicians, dentists, lawyers and other professional men who may have a large amount of unpaid accounts receivable on their books at time of death. The ruling holds that all the accounts-receivable outstanding as of the date of death, less an allowance for bad accounts, are includible in the deceased's taxable income for that portion of the year just prior to his death. This ruling treats income "accrued" at time of death as income "received" by the individual during his lifetime, even though he has been making his annual income tax return on a cash receipts and disbursement basis. A record of collection efficiency should be kept to enable the executor of an estate to arrive at a reasonable allowance discount for uncollectible items. The bad feature of this ruling is the certainty of putting an extra heavy total income in the year of a physician's death, causing heavy surtax as well as normal tax to be levied. If you have a large volume of accounts receivable outstanding, it would be wise to provide some special form of term insurance to save your estate from embarrassment in having to meet in cash an extra heavy tax outlay.

ADVANTAGES OF MEMBERSHIP

Outside of the moral obligation—as Theodore Roosevelt phrased it: "Every man owes some of his time to the upbuilding of the profession to which he belongs"—every doctor of medicine should belong to the Michigan State Medical Society if he is interested in receiving *tangible* benefits.

Added to the fact that medical organization is constantly working to uphold the standards of medical practice and to enhance the ability of practitioners to give quality service, just a few of the many additional advantages which may be overlooked are here listed:

1. Michigan's extraordinary postgraduate program—the country's best—and the postgraduate certification of physicians by the Michigan State Medical Society.
2. Use of the M.S.M.S. JOURNAL for contributed articles, limited to members.
3. Membership in special societies, contingent upon membership in the Michigan State Medical Society.
4. Malpractice insurance available only to members of the Michigan State Medical Society in high-grade insurance companies.
5. The gradual limitation of hospital staff membership to members of county medical societies.

The Michigan State Medical Society has a membership of 4,425 of the 4,850 practicing physicians of the state. This represents an increase of one thousand and fifteen (1,015) members since July 31, 1935. Tangible benefits must be present, to interest such a large increase in membership in less than five years!

REMEMBER THE NAMES

Michigan Medical Service is the only voluntary non-profit group medical care plan in Michigan incorporated under Act No. 108 of the Public Acts of 1939. It was sponsored by the Michigan State Medical Society. Michigan Medical Service has opened offices at 2002 Washington Boulevard Building, Detroit. Henry R. Carstens, M.D., Detroit, is Chairman of the Board of Directors of Michigan Medical Service.

The Michigan Society for Group Hospitalization is the only voluntary non-profit group hospital service plan in Michigan incorporated under Act 109 of the Public Acts of 1939. It was sponsored by the Michigan Hospital Association and has the approval of the Michigan State Medical Society.

MEDICAL PUBLICITY
Wayne County Medical Society

The W.C.M.S. Committee on Public Information launched a new program of medical publicity releases to the Detroit newspapers on Sun-

day, February 4, with a series in the *Detroit Free Press,* the *Detroit News,* and the *Detroit Times.*

Releases will be issued every week and will cover various phases of medical thought, informing the public towards a better understanding of the scientific and economic problems facing the medical profession.

The Wayne County Medical Society and the metropolitan newspapers of Detroit are to be congratulated on this progressive public relations service to the public at large.

"NOT A PART OF THE LEGAL CERTIFICATE"

On the reverse side of the new type birth certificate, a request is made for supplemental data to be filled in by the doctor.

The questions are of such a nature that the doctor, supplying this extra-legal information (without the written consent of the parents of the child), might lay himself open to legal action for alleged malpractice.

The Health Commissioner of Michigan, H. Allen Moyer, M.D., recognized this danger and on February 10 wrote the following communication to the secretary of every county medical society of Michigan:

"Your attention is invited to the questions appearing on the back of the new birth records, copy enclosed.

"I wish you to announce to your medical society at its next meeting that these particular questions are not a part of the legal certificate and therefore, may be answered according to the discretion of the attending physician."

MALPRACTICE PROTECTION IN INSTITUTIONS

Legal opinion and judgment is to the effect that a physician working in an institution is liable for malpractice, just as his brother in private practice. In Michigan, institutions have been declared not liable; but certainly there would be liability on the part of the doctor of medicine, who should protect himself with adequate insurance against alleged malpractice.

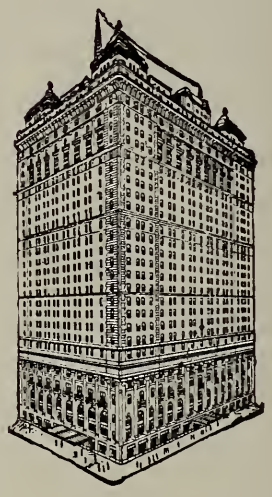
California Breaks Precedent

For the past twenty-five years, California courts have held charitable hospitals are not liable for personal injuries to patients. Recently this precedent has been upset with two decisions by the California Supreme Court. Damages were affirmed against an Oakland hospital and also against a Los Angeles hospital. In one case a $3,000 judgment was awarded to the patient who sustained injuries in a fall from her bed; in the other case $2,250 was awarded for a hot-water bottle burn.

The California Supreme Court said in part: "The hospital is rarely maintained upon the donation of one charitably disposed individual. This is a business enterprise, which, although it may be the recipient of some donations, is able to carry on its work because the aggregate amount received from paying patients is sufficient to meet the expense of administration to those patients and also to others accepted at a reduced rate or without charge."

Even hospitals must protect themselves from malpractice fever.

MSMS Convention

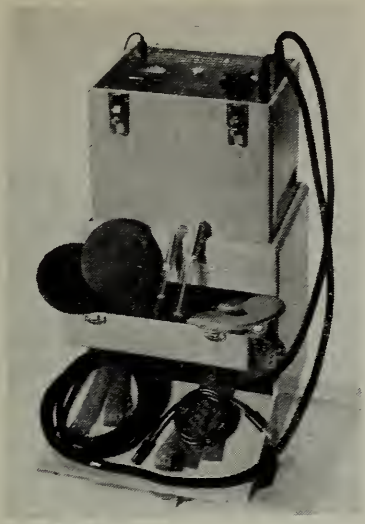


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Woman's Auxiliary

Wayne County: On January 12, the Woman's Auxiliary met in Alger Center. It has become necessary for the meetings to be held in this building, in the rear of the Wayne County Medical club house, in order to accommodate the large crowds which the interesting programs are attracting.

Miss Helen Bower, a Detroit newspaper woman, who is widely known and active in many of the city's charitable and philanthropic organizations, spoke on outstanding books of the past year. It was a most entertaining and instructive talk.

At the conclusion of the program tea was served in the Wayne County Medical club house.

Washtenaw County: The January meeting of the Auxiliary was held at the home of Mrs. Sidney L. LaFever. A hobby show was the setting for the evening. Interesting displays were arranged by Mrs. Wallace Teed, Mrs. C. J. Buscaglia, Mrs. R. M. Patterson, Mrs. Emory Sink, Mrs. John Wessinger, Mrs. Howard Cummings, Mrs. LaFever, Mrs. Karl Malcolm, Mrs. Max Peet, Mrs. John Gates and Mrs. Charles L. Washburne.

Mrs. R. W. Waggoner is the chairman for the card party planned to raise money for the scholarship fund. Mrs. George Muehlig and her committee have prepared the material for the jackets to be made up for the Red Cross work.

The husbands will be entertained at a formal dinner meeting next month.

Kent County: At a regular meeting of the Auxiliary January 10 in the club rooms of the Society, the nominating committee reported the selection of Mrs. Guy DeBoer as President-Elect. Mrs. J. B. Whinery read a most interesting report concerning the Benevolent Fund, stating that at present there is a balance of $626.63 in the fund. Announcement was also made of the annual dinner dance to be held Saturday, February 3, at the Peninsular Club, with Mrs. Ralph Fitts as general chairman.

After the business meeting Mrs. O. H. Gillett introduced Mr. Douglas D. Blocksma who spoke on the "Problems of the Normal School Child."

Mrs. J. Donald Flynn and Mrs. W. C. Beets were hostesses for the delightful tea which followed.

Kalamazoo County: Twenty-five members of the Auxiliary were entertained at the home of Mrs. Keith Bennett, January 16. After a short business meeting, Mrs. Walter den Bleyker gave a most interesting review of "My Days of Strength" by Dr. Anne Walter Fearn, a much loved woman physician who spent forty-four adventurous years in China.

Jackson County: The January meeting of the Auxiliary was held in the home of Mrs. E. F. Lewis.

A special collection was taken for Finnish relief. Hospital Aid is to be the project for another year. Dr. L. Fernald Foster, Secretary of the State Medical Society, spoke on the Wagner Bill, discussing also many problems which the medical profession faces today.

Jackson women have had the privilege of hearing two programs of interest to the group. Dr. W. L. Howard of the American Legion Hospital of Battle Creek spoke most ably on "Service." He showed with films the methods used in the treatment of tuberculosis and about services given by the American Legion in other fields of social work.

At the recent meeting of the County Federation of Women's Clubs, J. D. Laux of Lansing spoke of the advantages of Michigan Medical Service soon to be inaugurated in the State. Dr. Henry Ransom of the University of Michigan gave a lecture and showed slides on cancer control at the same meeting.

Genesee County: The first anniversary of the Genesee County Auxiliary was celebrated at luncheon on January 25 at St. Joseph Hospital in the form of a pot-luck. Mrs. T. N. Wills was in charge of arrangements and fifty members were present.

Dr. F. E. Reeder was introduced by Mrs. Henry Cook, and spoke on "Medical Legislation." This was followed by readings given by Alma Jane Grieson.

Mrs. L. G. Christian and Mrs. H. L. French of Lansing, president and secretary respectively of the State Auxiliary, attended from Lansing. Mrs. Christian addressed the group on the progress of the county Auxiliary. Our membership has increased to the fine total of ninety-one.

A motion was made to make plans for a spring dinner-dance, and our president, Mrs. Gordon Willoughby, promised arrangements would be forthcoming at the next meeting to be held February 28 with a luncheon at the Dresden Hotel.

Delta-Schoolcraft: Mrs. G. C. Bartley entertained the Auxiliary Friday, January 26.

At the business session plans were discussed for sponsoring the appearance here on February 5 of Dr. W. W. Bauer of Chicago, editor of *Hygeia* and Director of the Bureau of Health Education.

Following the business meeting tea was served with Mrs. W. A. LeMire, Sr., pouring.

Attention, Woman's Auxiliary Members!

The Postgraduate Courses for 1940 begin the second week of April (program on page 221).

Michigan's postgraduate work, arranged by the Michigan State Medical Society, Wayne University College of Medicine, and the University of Michigan Postgraduate Department, is divided into (a) Extramural Courses (brought to the doctor in his own front yard), and (b) the Short Intensive Courses in Detroit and Ann Arbor.

Opportunity is knocking at your husband's door. Influence him to take advantage of the country's finest postgraduate program. Keep him abreast of his Fellows!

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

DR. DEAN APPOINTED DEPUTY COMMISSIONER

Carleton Dean, M.D., M.P.H., for nine years district health officer at Charlevoix, has been appointed deputy commissioner of the Michigan Department of Health and director of the Bureau of Local Health Service.

Receiving his medical degree from the Detroit College of Medicine in 1924, Dr. Dean engaged in private practice for six years in Eaton Rapids. He was awarded a Rockefeller scholarship in 1929 and received his masters degree in public health at Johns Hopkins in 1933. Dr. Dean is a member of the State Council of Health and a past president of the Michigan Public Health Association. He is a fellow of the American Public Health Association and the American Medical Association.

PNEUMONIA FATALITY RATE DOWN

Fatality rates in those lobar pneumonia cases of both types 1 and 2 treated by physicians with state antipneumococcic serum alone or in combination with sulfapyridine have been less than one-half that of last year, the Pneumonia Division reports. In adequately treated cases of lobar pneumonia receiving both state serum and sulfapyridine, the fatality rate for type 1 has been 6.2 per cent, and for type 2 the rate has been 6.7 per cent. These record low pneumonia fatality rates are believed to be indicative of the effectiveness of the combined treatment of pneumonia with both serum and sulfapyridine.

TO EXAMINE IMPORTED LABORERS

The Department is coöperating with the Michigan Sugar Beet Growers Association in the examination of some 6,000 transient laborers who come to Michigan each spring to work in the sugar beet fields. As a means of preventing the importation of diseases among these transient laborers, the Department is organizing examination centers at Dallas and San Antonio, Texas. Last year more than 120 applicants were rejected, including 86 who were found to have active tuberculosis. Examinations this year will start about April 1, continuing for six weeks.

AUTO FATALITIES INCREASE

Michigan's hopes for a new low automobile death record in 1939 were lost when December auto fatalities totaled 172, the highest monthly toll for the year and the highest for the month of December since 1936.

Provisional reports show a total of 1,510 auto deaths in 1939 compared with 1,474 the previous year. The 1939 total, however, is still 30 per cent lower than the all time high record of 1937 when 2,174 persons were killed by automobiles.

SMALLPOX INCREASES 35 PER CENT

A 35 per cent increase in smallpox cases during 1939 is indicated in the Department's annual communicable disease summary. A total of 371 cases was reported last year compared with 274 in 1938. Smallpox prevalence has been on the increase in Michigan since 1935 when only 16 cases were reported.

The widespread outbreak of poliomyelitis in 1939 resulted in a reported total of 904 cases. This compares with 59 cases reported the previous year and 1,137 cases in the major outbreak of 1931.

POSTGRADUATE SCHOLARSHIPS IN OBSTETRICS

Doctors who have been awarded scholarships for two weeks postgraduate courses in obstetrics and allied subjects at the University of Michigan during February and March include the following: Dr. H. M. Jardine, West Branch; Dr. J. M. Trudeau, Rogers City; Dr. Theo. H. Pauli, Pontiac; Dr. J. W. Wilcox, Bay City; Dr. H. W. Burton, East Tawas; Dr. M. A. Hunter, Monroe; Dr. S. M. Pearson, Bay City; Dr. C. W. Reuter, Bay City; Dr. John Konopa, Manistee; Dr. Richard Peckham, Gaylord; Dr. Emil J. Laurett, Muskegon; Dr. E. S. Huckins, Bay City.

Requests for these scholarships in obstetrics should be addressed to Dr. Lillian R. Smith at the Michigan Department of Health.

PREVENTING PERTUSSIS VACCINE REACTIONS

Most reactions to immunization with pertussis vaccine will be prevented, the Department believes, if the vaccine is first heated to body temperature and then administered subcutaneously.

Under no circumstances should the *vaccine* be taken out of *refrigeration* and *used immediately for pertussis immunization.*

The Department also emphasizes that too shallow an injection in the skin or too deep an injection into the muscle will result in sharp local reactions and possible systemic reactions. Specific directions are enclosed with each package of pertussis vaccine.

GENESEE COUNTY SOCIETY SPONSORS HEALTH SURVEY

The Preventive Medicine Committee of the Genesee County Medical Society in sponsoring a city health survey in Flint to be conducted by Dr. Carl Buck, field director of the American Public Health Association. Dr. Lafon Jones, committee chairman, has announced that particular emphasis will be given the needs of the preventive medical program. The county medical society voted to defray the cost of the survey. It is expected that Dr. Buck will make his new survey during the coming spring.

DARKFIELD TESTS EFFECTIVE IN FINDING SYPHILIS

The darkfield microscopic test for the early diagnosis of syphilis in its initial stage is considered one of the most important and efficient tests for the control of the disease and the cure of the patient. For the past year the Department laboratories at Lansing, Grand Rapids, Houghton and Powers, have provided darkfield kits for physicians wishing to mail in specimens for darkfield microscopic examinations. These kits are also available to physicians through all full time health officers.

On the basis of its experience during the past year, the Department laboratories report that one out of every 4.5 shipped-in darkfield specimens have been found positive for syphilis. This compares with an average of one out of every 4.8 specimens reported

positive in Detroit clinics where the patient was present. *These figures indicate that essentially the same results may be expected whether the patient is actually present or whether the specimen is shipped in to the laboratory.* The Department is prepared to supply complete darkfield outfits for taking chancre specimens to all physicians who have need for this service. Similar service is available locally in Detroit, Flint, Kalamazoo, Jackson, Pontiac and Grand Rapids.

HEALTH OFFICERS MEET WITH COUNTY SECRETARIES

Michigan's full time health officers turned out practically one hundred per cent to attend the unique joint conference with the secretaries of the county medical societies January 21 at Lansing.

The splendid spirit of the occasion was indicative of the close coöperation which can be expected between local health departments and county medical societies in the achievement of their mutual objectives.

IMMUNIZATION SCHEDULE CARDS

Physicians who wish to use the "Recommended Immunization Schedule" cards in their contacts with parents of preschool children may secure a supply upon request to the Michigan Department of Health at Lansing. The cards carry a schedule for the recommended immunization on one side and a blank form on the reverse side for recording all protective treatments given.

SYPHILIS BROADCAST

Dr. Robert S. Breakey of Lansing, chairman of the Syphilis Control Committee of the Michigan State Medical Society, participated in a Department broadcast February 7 over Station WKAR, East Lansing, in connection with the syphilis control program of the State Medical Society and of the Ingham County Medical Society.

PERSONNEL CHANGES

Miss Helene Buker, R.N., M.A., formerly director of nurses for the Cattaraugus County Department of Health in New York State, has been appointed assistant director of the Department's Bureau of Public Health Nursing. Miss Buker has also served previously as supervisor for the Henry Street Nurse Service in New York City.

H. G. Dyktor, B.S.C.E., has been appointed chief industrial hygiene engineer for the Department's Bureau of Industrial Hygiene. Mr. Dyktor, who was formerly director of the Bureau of Industrial Hygiene for the Health Division of the City of St. Louis, will assist Dr. K. E. Markuson, director, in the engineering phases of the state's industrial hygiene program.

Dr. R. E. Hall of Mason has been appointed director of the Bay City Health Department to succeed Dr. G. W. Moore, resigned. Dr. Hall had been serving as assistant director of the Ingham County Health Department.

Dr. Lorin E. Kerr, Jr., who has been completing a fellowship with the W. K. Kellogg Foundation in the Eaton County Health Department for the past six months, has been appointed assistant director of the Ingham County Health Department to fill the vacancy left by Dr. Hall's resignation.

SILVER PICRATE

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Has shown a CONVINCING RECORD* OF EFFECTIVENESS in ACUTE ANTERIOR URETHRITIS

due to Neisseria gonorrheae • Trichomonas vaginalis Monilia albicans

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in anterior urethritis: Wyeth's Silver Picrate Crystals in an aqueous solution of 0.5 percent.

Supplied at all pharmacies in vials of 2 grams

Complete literature on Silver Picrate as used in genitourinary and gynecological practice will be mailed on request.

*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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COUNTY AND PERSONAL ACTIVITIES

The Michigan Basic Science Board announces it will conduct its first examination of applicants at Michigan State College, East Lansing, on March 29, and 30, 1940.

* * *

President Corbus has appointed Martin H. Hoffmann, M.D. as Chairman of the Mental Hygiene Committee, and Robert G. Laird, M.D., as Secretary of the Section on Ophthalmology and Otolaryngology.

* * *

A course of twelve lectures on the pathology and pathologic physiology of the circulation is being given at Eloise Hospital by S. E. Gould, M.D. and R. H. Lyons, M.D.

* * *

R. J. Hubbell, M.D., Councilor of the 4th District, visited the Allegan County Medical Society on February 14, and the Berrien County Medical Society on February 15.

* * *

Information, please! Have we your correct address? If you have moved recently, or if the address on your JOURNAL is incorrect, please send us a postal giving us the correction. We want you to receive every issue of THE JOURNAL without delay.

* * *

Henry R. Carstens, M.D., Chairman of the M.S.M.S. Council, and of the Board of Directors of Michigan Medical Service, was interviewed over radio station WWJ, Detroit re Michigan Medical Service on January 26, 1940.

* * *

E. F. Sladek, M.D., Traverse City, Councilor of the Ninth District, addressed the local Parent-Teacher Association on January 17 on "Socialized Medicine vs. Michigan Medical Service in a Democracy Such as Ours." Doctor Sladek also addressed the Traverse City Elks Club on Michigan Medical Service.

* * *

The termination of fifty years of practice of Dr. William J. O'Reilly of Saginaw was the occasion for an elaborate banquet at which two hundred and fifty community leaders and colleagues were guests. Leaders in medicine from all over the State expressed their gratitude to him for his aid in promoting the work and program of various Saginaw projects.

* * *

"How Can Education Improve the Nation's Health" was the subject of a symposium conducted by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association held in St. Louis, Missouri, on February 28, 1940. Mr. Frank Cody of Detroit and Charles C. Wilson, M.D., presided.

* * *

The American Association for the Study of Goiter will hold its next annual meeting in Rochester, Minnesota, on April 15, 16, 17, 1940. The program for the three-day meeting will consist of papers dealing with goiter and other diseases of the thyroid gland; dry clinics conducted by guests of the association; and operative clinics conducted by the staff of Mayo Clinic.

* * *

Opportunity for a woman physician.—The Women's American Baptist Foreign Mission Society needs a capable woman physician and surgeon, under 35 years of age, to go to Gauhati, Assam. Anyone interested in this opportunity to work in a new hospital, contact the Candidate Secretary, Women's American Baptist Foreign Mission Society, 152 Madison Avenue, New York City.

The Annual American College of Surgeons regional meeting will be held in Detroit and Ann Arbor Monday, Tuesday, Wednesday, April 1, 2, 3, 1940.

Fellows of the Section, comprising Michigan, Ohio, Indiana, Illinois, Wisconsin and Ontario, will meet at the Statler Hotel, Detroit, on April 1 and 2, and in Ann Arbor on April 3, for operative clinics from 8 to 11 A. M., and round table discussions from 11 A. M. until 4:30 P. M. The afternoons will also feature scientific papers pertaining to surgery. On the last evening, April 3, a general health meeting for physicians and the laity will be held in the Masonic Temple, Detroit.

Entertainment for the wives of the visiting Fellows is scheduled for Sunday, March 31, as well as April 1, 2, and 3. Mrs. J. Milton Robb of Detroit is Chairman of the Ladies Entertainment Committee.

All members of the Michigan State Medical Society are invited to attend all meetings of this ACS Sectional meeting. For further details or program, write Grover C. Penberthy, M.D., 1515 David Whitney Building, Detroit, Chairman of Detroit Committee on Arrangements.

L. Fernald Foster, M.D., Bay City, Secretary of the Michigan State Medical Society, addressed the Woman's Club at Standish on "Federalized Medicine" on February 6. "Michigan Medical Service" was the subject discussed by Doctor Foster at the Gratiot-Isabella-Clare County Medical Society meeting in Alma on February 15, and at the Saginaw County Medical Society meeting in Saginaw on February 20.

* * *

The following Health Talks were released for broadcast over radio station CKLW during February:

February 9—7:30 p. m.—"Prevention of Heart Disease" by John M. Murphy, M.D., Detroit.

February 16—7:30 p. m.—"First Aid Procedures" by Eugene A. Osius, M.D., Detroit.

February 23—7:30 p. m.—"Pneumonia" by G. Thomas McKean, M.D., Detroit.

* * *

Sir William Osler: "May I paraphrase those noble words of Aristotle, in which he laid down the duty of the citizen to the state, as also peculiarly appropriate in defining the obligations of the doctor to his calling. No physician has a right to consider himself as belonging to himself; but all ought to regard themselves as belonging to the profession, inasmuch as each is a part of the profession; and care for the part naturally looks to care for the whole."

* * *

Headquarters of the Sixth Corps Area of the U. S. Army announces the Third Annual Military Medico-Dental Training Course at Chicago for Medical De-

partment Reserve officers to be held during the period of March 31 to April 13. The course will be conducted under the direction of the Corps Area Surgeon, Col. Paul W. Gibson, with the coöperation of the Medical and Dental Schools of the University of Illinois, University of Chicago, Loyola University and Northwestern University.

* * *

Doctor, remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medicinal supplies, and service. Here are ten more of the firms which helped make the 1939 convention such a great success:

The Jones Surgical Supply Company, Cleveland, Ohio
A. Kuhlman & Company, Detroit, Michigan
Lederle Laboratories, New York, New York
Lea and Febiger, Philadelphia, Pennsylvania
Libby, McNeill and Libby, Chicago, Illinois
Liebel-Flarsheim, Cincinnati, Ohio
Eli Lilly and Company, Indianapolis, Indiana
J. B. Lippincott, Philadelphia, Pennsylvania
M & R Dietetic Laboratories, Inc., Columbus, Ohio
McKesson Appliance Company, Toledo, Ohio

* * *

The February meeting of the Michigan Pathological Society was held at Grace Hospital, Detroit, on February 10. The Scientific Program consisted of the presentation of "Interesting and Problem Cases." Cases were presented by Drs. D. G. Christopoulos, C. Allen Payne, S. M. Asselstine, J. H. Ahronheim, A. DeGroat, A. A. Humphrey, C. H. Binford, H. Prentice, D. C. Beaver, B. E. Stofer, G. Steiner, E. F. Ducey, and F. W. Hartman. Dr. W. L. Brosius, President, presided.

* * *

Eloise Hospital Psychiatric Division, Eloise, Michigan, announces a one-day postgraduate clinic for general practitioners, and any others who are interested, in "Mental Illness and Modern Psychiatric Problems and Therapy," with special consideration to their practical application in general practice.

The postgraduate clinic will be held Wednesday, April 24, 1940. The complete program will be published in the April JOURNAL, or may be had by addressing Martin H. Hoffmann, M.D., Clinical Director, Eloise Hospital, Eloise, Michigan.

* * *

Membership and Fellowship in A.M.A. defined. If you are a member in good standing of your state medical society, you are automatically a member of the American Medical Association with no extra dues. To qualify as a Fellow of the A.M.A., a Member must have graduated from a recognized medical school, must make formal application for Fellowship, pay Fellowship dues and subscribe to The Journal, A.M.A. The dues and cost of Journal subscription are $8.00 per year, which is the regular cost of The Journal to non-fellows. Fellowship application blanks may be obtained by writing the Executive Office, 2020 Olds Tower, Lansing.

* * *

Winged Foot Country Club Chosen for 1940 A.M.A. Golf Tournament. The New York Golf Committee for the 1940 A.M.A. Meeting has chosen Winged Foot Country Club for the Twenty-Sixth Annual Tournament of the American Medical Golfing Association, Monday, June 10, 1940. Winged Foot has two championship courses and a beautiful clubhouse.

The New York Golf Committee is composed of James Craig Joyner, M.D., Chairman; Edwin G. Zabriskie, M.D., Charlton Wallace, M.D., Orrin Sage Wightman, M.D., and Asa Liggett Lincoln, M.D.

Officers of the American Medical Golfing Association are George Washington Hall, M.D., Chicago, President; D. H. Houston, M.D., Seattle, First Vice President; Grayson Carroll, M.D., St. Louis, Second Vice President; Bill Burns, 2020 Olds Tower, Lansing, Secretary.

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COUNCIL AND COMMITTEE MEETINGS

1. Monday, January 29—Maternal Health Committee—Statler Hotel, Detroit, 12:00 noon.
2. Saturday, February 3—Industrial Health Committee—Statler Hotel, Detroit, 6:30 p. m.
3. Sunday, February 4—Tuberculosis Control Committee—Statler Hotel, Detroit, 10:00 a. m.
4. Sunday, February 4—Preventive Medicine Committee—Statler Hotel, Detroit, 2:00 p. m.
5. Sunday, February 4—Committee on Scientific Work—Statler Hotel, Detroit, 4:30 p. m.
6. Wednesday, February 7—Maternal Health Committee—Howell, 12:30 p. m.
7. Wednesday, February 7—Syphilis Control Committee—Hotel Olds, Lansing, 5:00 p. m.
8. Thursday, February 8—Executive Committee of The Council—Hotel Porter, Lansing, 4:00 p. m.
9. Sunday, February 18—Committee on Distribution of Medical Care—Hotel Durant, Flint, 2:30 p. m.

* * *

GRADUATE CONFERENCES

The Program for Graduate Conferences for Physicians sponsored by the Michigan State Medical Society, the Wayne County Medical Society, Detroit Department of Health, Wayne University College of Medicine, University of Michigan Department of Postgraduate Medicine, Detroit Tuberculosis Society, and American Academy of Pediatrics will begin on April 3 and continue for four weeks at Herman Kiefer Hospital, Detroit, Wednesday morning at 10:30 a. m. The following lecturers are scheduled:

April 3—Willis D. Gatch, M.D., Dean and Professor of Surgery, Indiana University Medical School, "Abdominal Lesions in Children."

April 10—Udo Wile, M.D., Professor of Dermatology and Syphilology, University of Michigan, "Management of Syphilis in Private Practice."

April 17—Panel Discussion on "Bringing Tuberculosis Up to Date." Leader: Bruce H. Douglas, M.D., Detroit.

April 24—Frederick F. Yonkman, M.D., Professor of Pharmacology, Wayne University, "Newer Medications of Interest to Physicians."

* * *

NATIONAL CONFERENCE ON MEDICAL SERVICE

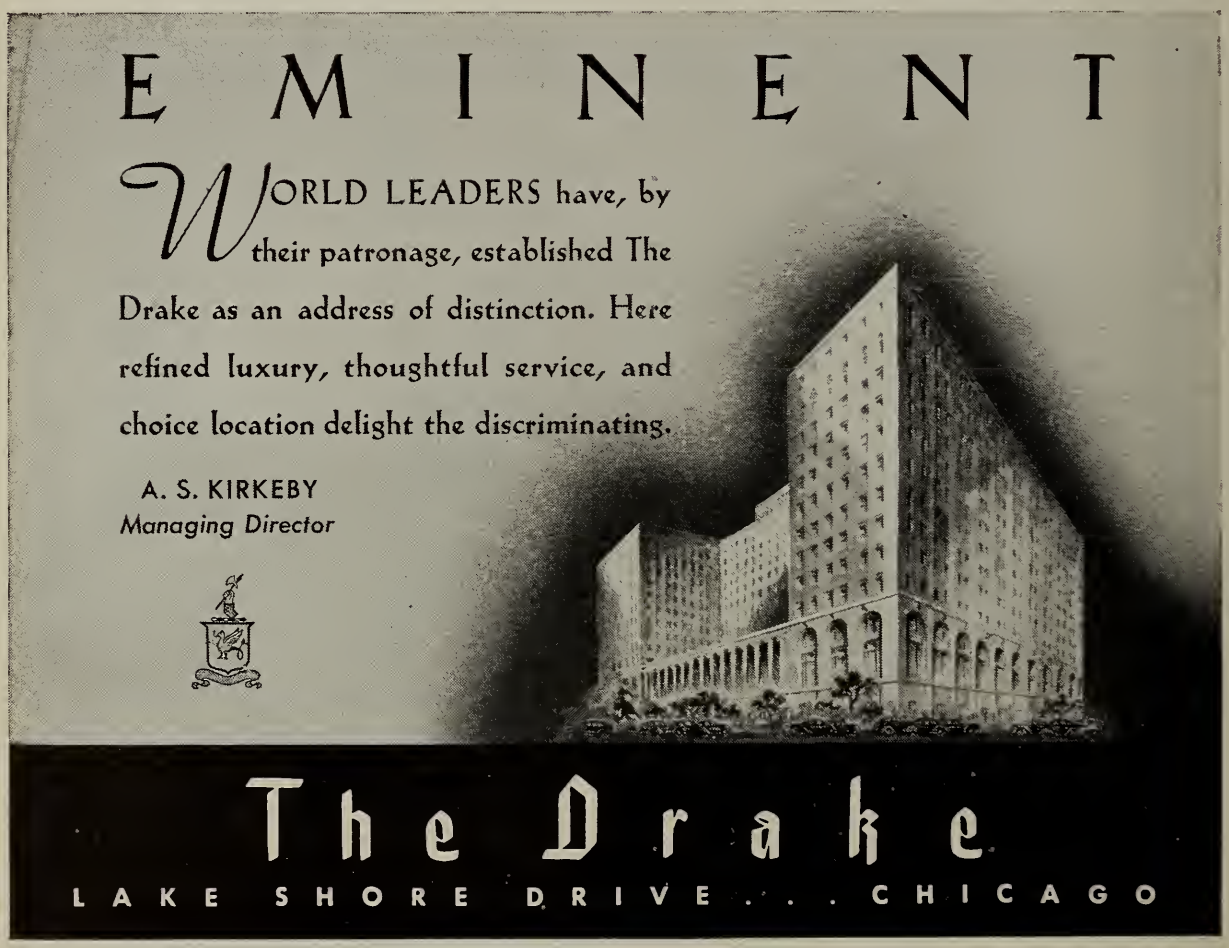
Twenty-five states and the District of Columbia were represented at the 1940 National Conference on Medical Service (formerly the Northwest Regional Conference) held at the Palmer House, Chicago, February 11. The 205 who registered came from the twenty-five states as follows: Arkansas, 1; California, 2; Colorado, 1; Connecticut, 3; District of Columbia, 3; Florida, 1; Idaho, 1; Illinois, 60; Indiana, 21; Iowa, 9; Kansas, 8; Massachusetts, 1; Michigan, 17; Minnesota, 18; Missouri, 11; New Hampshire 1; Nebraska, 5; New Jersey, 5; North Dakota, 1; New York, 1; Ohio, 12; Pennsylvania, 7; South Dakota, 2; Texas, 2; Virginia, 2; and Wisconsin 2.

Forrest L. Loveland, M.D., Topeka, Kansas, President-elect of the Kansas State Medical Society, was elected President and Harold M. Camp, M.D., Monmouth, Illinois, Secretary of the Illinois State Medical Society, was elected Secretary.

* * *

POSTGRADUATE COURSE IN PEDIATRICS

The Annual Postgraduate Course in Pediatrics under the auspices of the American Academy of Pediatrics,



the University of Michigan, Wayne University, the Wayne County Medical Society and the Detroit Department of Health will be held at Henry Ford Hospital, Children's Hospital of Michigan and Herman Kiefer Hospital, Detroit, on April 1, 2, and 3, 1940. All members of the Michigan State Medical Society are cordially invited to attend. No registration fee is charged.

Speakers on the program for Monday, April 1, scheduled for Henry Ford Hospital include W. C. C. Cole, M.D., Harry Towsley, M.D., Don Barnes, M.D., P. J. Howard, M.D., Brenton Hamil, M.D., John Law, M.D., Lee Vincent, M.D., H. O. Davidson, M.D., and J. A. Johnston, M.D.

On Tuesday, April 2, at Children's Hospital of Michigan, the following speakers are included on the program: Thomas B. Cooley, M.D., Saul Rosenzweig, M.D., Benjamin Carey, M.D., James L. Wilson, M.D., S. Bernstein, M.D., James Wilson, M.D., E. E. Bartmer, M.D., and Grover C. Penberthy, M.D.

A joint meeting of Graduate Conference for Physicians and Pediatric Postgraduate Course will be held on Wednesday, April 3, with the following included among the speakers: Loren W. Shaffer, M.D., Willis D. Gatch, M.D., C. E. Woodruff, M.D., Bruce H. Douglas, M.D., Franklin H. Top, M.D., and Donald C. Young, M.D.

* * *

NORTHERN TRI-STATE MEDICAL ASSOCIATION

The Northern Tri-State Medical Association will hold its 67th Annual Meeting in Battle Creek on Tuesday, April 9, 1940. The Scientific Program will be held in the Auditorium, Administration Building of Battle Creek College; the following program will be presented:

PROGRAM

Morning Session—8:15 a.m.

George J. Curry, M.D., Flint, Mich.—"Management of Long Bone Fractures." Illustrated with motion pictures.
Discussant: C. W. Brainard, M.D., Battle Creek, Michigan.

Carl J. Klemme, Ph.D., W. Lafayette, Ind., Professor of Pharmaceutical Chemistry, Purdue University, School of Pharmacy.—"Relationships Between Sterols, Cardiac Poisons, Vitamins D, and Sex Hormones."
Discussant: A. M. Shaeffer, M.D., Jackson, Michigan.

David Slight, M.D., Chicago, Ill., Professor of Psychiatry, University of Chicago.—"Migraine."
Discussant: J. M. Robb, M.D., Detroit, Michigan.

Thomas E. Jones, M.D., Cleveland, Ohio, Surgeon, Cleveland Clinic.—"Diverticulitis of the Colon."
Discussant: R. L. Mustard, M.D., Battle Creek, Michigan.

Afternoon Session—1:15 p.m.

Louis J. Hirschman, M.D., Detroit, Mich., Professor of Proctology, Wayne University.—"Fistula in Ano—It's Present Day Treatment." Illustrated with colored motion pictures.
Discussant: Wendell W. Green, M.D., Toledo, Ohio.

Vincent J. O'Conor, M.D., Chicago, Ill., Associate Professor of Surgery, University of Illinois.—"Prostatic Diseases."
Discussant: R. S. Breakey, M.D., Lansing, Michigan.

Business Meeting (15 minutes)

Fred L. Adair, M.D., Chicago, Ill., Professor of Obstetrics and Gynecology, University of Chicago.—"Pyelitis and Pregnancy."
Discussant: John P. Gardiner, M.D., Toledo, Ohio.

James B. Costen, M. D., St. Louis, Mo., Assistant Professor of Otolaryngology, Washington University.—"Neuralgias and Trismus Resulting from Mandibular Joint Disturbance."
Discussant: Vernor H. Eman, D.D.S., M.S., Grand Rapids, Michigan.

Evening Session—6:15 p.m.

Banquet at Battle Creek Sanitarium.

Walter C. Alvarez, M.D., Rochester, Minn., Mayo Clinic.—"The Patient Who Is Always Ailing in Spite of Many Treatments."

All members of the Michigan State Medical Society are cordially invited to attend this interesting meeting.

D. R. Brasie, M.D., of Flint is president; Bert Hibbard, M.D., of Lima, Ohio, is vice president; E. Benj. Gillette, M.D., of Toledo, Ohio, is secretary, and Lyman T. Rawles, M.D., of Fort Wayne is treasurer of the Association.

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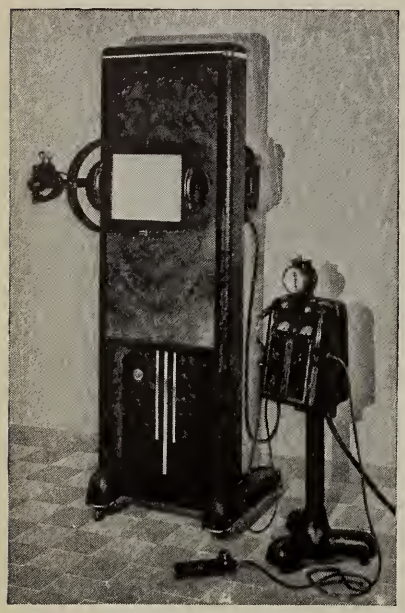
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COUNTY MEDICAL SOCIETY MEETINGS

Bay County—January 31—Bay City—Joint Meeting with Bay County Dental Society—Speaker: Phillip Jay, D.D.S., Ann Arbor. February 14—Bay City—Speaker: Dean W. Myers, M.D., Ann Arbor.

Berrien County—February 15—Benton Harbor—Speakers: Harrison S. Collisi, M.D., Grand Rapids and R. J. Hubbell, M.D., Kalamazoo.

Calhoun County—February 6—Battle Creek—Speaker: A. C. Furstenberg, M.D., Ann Arbor.

Ionia-Montcalm County—February 13—Ionia—Speakers: Raymond Waggoner, M.D. and Arthur C. Curtis, M.D., Ann Arbor.

Kent County—January 24—Grand Rapids—Speakers: John M. Sheldon, M.D., Ann Arbor and Harrison S. Collisi, M.D., Grand Rapids.

Monroe County—December 14—Monroe—Speakers: Albert McCown, M.D., Lansing, and John S. DeTar, M.D., Milan. January 18—Monroe—H. H. Cummings, M.D., Ann Arbor, and W. W. Green, M.D., Toledo.

Muskegon County—January 26—Muskegon—Speaker: Lynn Ferguson, M.D., Grand Rapids.

Oakland County—February 7—Pine Lake—Speaker: Frederick A. Coller, M.D., Ann Arbor.

St. Clair County—February 13—Port Huron—Speaker: Wm. Cassidy, M.D., Detroit.

Shiawassee County—February 15—Owosso—Speaker: W. F. Shepherd, M.D., Owosso.

Washtenaw County—January 19—Ann Arbor—Speaker: Arthur C. Curtis, M.D., Ann Arbor.

Wayne County—February 5—Detroit—Speaker: Alfred Blalock, M.D., Nashville. February 12—James H. Mitchell, M.D., Chicago. February 19—Joint Meeting with Detroit Retail Druggists Association. Speaker: E. Fullerton Cook, P.D., Ph.M., Philadelphia. February 26—Round Table on Obstetrics: H. C. Mack, M.D., L. E. Daniels, M.D., M. A. Darling, M.D., R. W. Alles, M.D., R. B. Kennedy, M.D., J. P. Pratt, M.D., and W. F. Seeley, M.D.

West Side Medical Society (Detroit)—February 15—Speakers: R. S. Dixon, M.D., E. F. Ducey, M.D., Donald C. Somers, M.D., R. A. C. Wollenberg, M.D., Harvey Brown, M.D., of Detroit.

* * *

New County Society Officers

Barry County:
President: C. A. E. Lund, M.D., Middleville
Secretary: A. B. Gwinn, M.D., Hastings

Gratiot-Isabella-Clare:
Secretary: E. S. Oldham, M.D., Breckenridge (Elected to fill vacancy left by resignation of C. F. Dubois, M.D.)

Hillsdale County:
President: C. J. Poppen, M.D., Reading
Secretary: A. W. Strom, M.D., Hillsdale

Jackson County:
President: R. H. Alter, M.D., Jackson
President-Elect: A. M. Shaeffer, M.D., Jackson
Secretary: Horace W. Porter, M.D., Jackson
Treasurer: Dean W. Smith, M.D., Jackson

Newaygo County:
President: T. R. Duer, M.D., Grant
President-Elect: B. F. Gordon, M.D., Newaygo
Secretary-Treasurer: W. H. Barnum, M.D., Fremont
Delegate to MSMS: O. D. Stryker, M.D., Fremont
Alternate Delegate: W. H. Barnum, M.D., Fremont

POSTGRADUATE COURSES FOR 1940

The *Extramural Courses* will begin the second week in April and continue throughout the month. The following subjects have been selected for the course:

Gastric Diseases. Modern Methods of Diagnosis and Treatment. What we have learned by the gastroscope.

Obscure Fever. Methods useful in early diagnosis.

Diagnosis and Treatment of Common Anal and Rectal Diseases.

The Management of the Arteriosclerotic-obese Patient.

Relations of General Practice to Industrial Health.

Leukorrhea. Its Causes and Treatment.

Multiple Sclerosis. The Differential Diagnosis of Common Neurological Disease.

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The *short, intensive courses* in Ann Arbor and Detroit will be given on the following dates:

Allergy .....June 17-21
Anatomy.....February 15-May 30 (Thurs.)
Diseases of Blood and Blood-Forming Organs May 20-24
Diseases of the Heart.....April 8, 9 and 10
Electrocardiographic Diagnosis....November 4-9
Neuropsychiatry .....November
Nutritional and Endocrine Problems....June 3-7
Ophthalmology and Otolaryngology...April 18-24
Pathology
Special Pathology of Neoplasms..June 24-July 5
Pathology of Female Genito-Urinary Organs July 8-19
Special Pathology of the Eye..July 22-August 2
Special Pathology of the Ear, Nose and Throat .....August 5-16
Pediatrics.....April 1, 2 and 3
Proctology.....May 13, 14 and 15
Roentgenology .....April 22-26
Urology.....May 16, 17 and 18
Summer Session Courses....June 24-August 2, 16

The clinical and laboratory courses of the Summer Session are open to a limited number of graduates in medicine. A full schedule is arranged to meet the individual needs of each physician.

The Announcement of Courses will be available shortly and will be sent upon request.

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MEDICINE—Personal One Month Course in Electrocardiography and Heart Disease every month, except August. Intensive Personal Courses in other subjects.
FRACTURES AND TRAUMATIC SURGERY—Ten Day Intensive Course starting April 22, 1940. Informal Course every week.
GYNECOLOGY—Two Weeks Course April 22, 1940. One Week Personal Course Vaginal Approach to Pelvic Surgery, April 8, 1940.
OBSTETRICS—Two Weeks Course April 8, 1940. Informal Course every week.
OTOLARYNGOLOGY—Two Weeks Course starting April 8, 1940. Informal Course every week.
OPHTHALMOLOGY—Two Weeks Course starting April 22, 1940. Informal Course every week.
CYSTOSCOPY—Ten Day Practical Course rotary every two weeks. One Month and Two Weeks Courses in Urology every two weeks.
ROENTGENOLOGY—Special Courses X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

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SECRETARIES' CONFERENCE AND JOINT CONFERENCE WITH MICHIGAN PUBLIC HEALTH OFFICERS

In the first meeting of its kind in Michigan, representatives of forty county medical societies and health officers from nearly every organized health department in the State met on January 21, 1940, in Lansing to discuss their mutual problems, particularly in preventive medicine. More than eighty members of the medical profession registered, including forty county medical society secretaries; seventy-four representatives of the health departments registered.

Otto O. Beck, M.D., Birmingham, Councilor of the 15th District, presided at the morning session of the Secretaries, and Henry Cook, M.D., Flint, Past President of the Michigan State Medical Society presided at the Joint Session in the afternoon. C. W. (Bill) Otto, Secretary of the Lansing Chamber of Commerce delivered the very stimulating noon address. Horace Wray Porter, M.D., Jackson, Secretary of the Jackson County Medical Society was elected Chairman of the Secretaries for 1940.

The list of those registering included the following:

County Medical Society Secretaries.—E. B. Andersen, M.D.; W. H. Barnum, M.D.; H. M. Best, M.D.; E. W. Blanchard, M.D.; D. C. Bloemendaal, M.D.; Sara M. Burgess, Executive Secretary; J. H. Burley, M.D.; C. G. Clippert, M.D.; R. C. Conybeare, M.D.; Frank Doran, M.D.; L. Fernald Foster, M.D.; Harold H. Gay, M.D.; Glenn Grieve, M.D.; C. L. Grant, M.D.; A. B. Gwinn, M.D.; L. J. Hakala, M.D.; Wilfrid Haughey, M.D.; H. C. Hill, M.D.; R. J. Himmelberger, M.D.; T. Y. Ho, M.D.; Leland E. Holly, M.D.; Benton Holm, M.D.; John S. Lambie, M.D.; W. S. Jones, M.D.; J. J. McCann, M. D.; H. R. Mooi, M.D.; E. T. Morden, M.D.; W. B. Newton, M.D. (pro tem); E. S. Oldham, M.D.; H. W. Porter, M.D.; Hazel R. Prentice, M.D.; R. K. Ratliff, M.D.; J. W. Rice, M.D.; E. C. Swanson, M.D.; Charles Ten Houten, M.D.; Dale Thomas, M.D.; Thomas Wilensky, M.D.; D. Bruce Wiley, M.D.; John S. Wyman, M.D.; I. H. Zielke, M.D.

Public Health Officers.—H. Allen Moyer, M.D., State Commissioner; Carleton Dean, M.D., Deputy Commissioner; A.D. Aldrich, M.D.; J. K. Altland, M.D.; F. T. Andrews, M.D.; C. D. Barrett, M.D.; Miss Helen Bean; C. H. Benning, M.D.; L. A. Berg, M.D.; N. Bernita Block, M.D.; E. J. Brenner, M.D.; I. W. Brown, M.D.; J. D. Brook, M.D.; Miss Helen Buker; L. V. Burkett, M.D.; G. M. Byington, M.D.; A. L. Callery, M.D.; B. W. Carey, M.D.; H. E. Cope, M.D.; C. C. Corkill, M.D.; G. T. Cummings, M.D.; Miss Miriam Cummings; Wm. R. Davis, D.D.S.; W. S. Feagan; M. R. French, M.D.; Stuart Friant; T. E. Gibson, M.D.; Miss Vida H. Gordon; Marie Hagele, M.D.; Clifton Hall, M.D.; Robert F. Hall, M.D.; R. J. Harrington, M.D.; K. S. Haitinger, M.D.; George Hays, M.D.; A. A. Hoyt, M.D.; E. F. Hoffman, M.D.; Joseph A. Kasper, M.D.; C. H. Keene, M.D.; M. R. Kinde, M.D.; T. M. Koppa, M.D.; R. Lanting, M.D.; John R. Lavan, M.D.; T. R. Laughbaum, M.D.; E. J. MacLachlan, M.D.; E. L. McQuade, M.D.; A. B. Mitchell, M.D.; Gordon B. Moffat, M.D.; J. G. Molner, M.D.; S. C. Moore, M.D.; W. J. Meyers, M.D.; K. W. Navin, M.D.; Charles A. Neafie, M.D.; A. W. Newitt, M.D.; H. B. Norman, M.D.; Russell Palmer, Edwin H. Place, M.D.; R. E. Pleune, M.D.; Frank A. Poole, M.D.; L. A. Potter, M.D.; Henry J. Pyle, M.D.; Anne Quigley; Hugh Robins, M.D.; R. S. Ryan, M.D.; E. C. Schultz, R. J. Shale, M.D.; W. G. Stevenson; M. E. Stone, M.D.; L. W. Switzer, M.D.; E. V. Thiehoff, M.D.; Sue Thompson, M.D.; Fred O. Tonney, M.D.; Franklin H. Top, M.D.; F. R. Town, M.D.; J. T. Tripp, Ph.D.; V. K. Volk, M.D.

Others present included Drs. B. R. Corbus, Henry R. Carstens, Otto Beck, A. S. Brunk, W. E. Barstow, H. H. Cummings, V. M. Moore, officers and councilors of the State Society; Doctors Z. R. Aschen Brenner, M. G. Becker, W. H. Boughner, R. S. Breakey, James D. Bruce, L. A. Campbell, L. G. Christian, Harrison S. Collisi, Henry Cook, T. R. Deur, Edw. O. Foss, L. O. Geib, A. M. Giddings, George R. Goering, P. B. Hardy, Robt. B. Harkness, T. F. Heavenrich, J. Bates Henderson, H. G. Huntingdon, Paul W. Kniskern, F. S. Leeder, C. E. Long, C. A. E. Lund, Harold A. Miller, F. O. Novy, D. J. O'Brien, W. S. Ramsey, L. O. Shantz, Milton Shaw, H. M. Smith, R. W. Spalding, John Sundwall, H. B. Zemmer.

Guests.—Douglas D. Tibbits, State Representative; Wm. W. Donaldson, State Highway Department; Jack Green, Lansing State Journal; Allen Schoenfield, Detroit News; and J. D. Laux, Executive Director of Michigan Medical Service.

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* * *

Albert Nelson, M.D.

Albert Nelson, of Battle Creek, Michigan, was born in Owatonna, Minn., January 20, 1878. He attended Battle Creek College and the American Medical Missionary College, graduating in 1903. He lived in Battle Creek fifty-two years. Died at the age of sixty-two years.

* * *

J. G. MacGregor, M.D.

J. G. MacGregor, of Boyne City, Michigan, was born in Glengarry County, Ontario, Canada. Dr. MacGregor attended McGill University of Montreal and Queen's University at Kingston, graduating from the latter in 1895. He began practicing in Elmira, Michigan, later coming to Boyne City, where he practiced until the time of his death.

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Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation of those sending them. A selection will be made for review, as expedient.

A TEXTBOOK OF LABORATORY DIAGNOSIS. Third Edition. By Edwin E. Osgood, M.A., M.D., Associate Professor of Medicine and Head of the Division of Experimental Medicine, University of Oregon Medical School and Member of the Staff of Multnomah County Hospital and the Consulting Staff of the Doernbecher Memorial Hospital for Children, Portland, Oregon. Published by The Blakiston Company, Philadelphia, 1940. Price: $6.00.

This is the third edition by Dr. Edwin E. Osgood. It contains 27 figures and 10 colored plates. It has been rearranged with much material added to the study of hematology. Due to the fact that new chemicals have been placed on the market since the last edition, there are many new methods with technic and interpretation. It is a modern, up to date clinical laboratory book which is valuable to the practitioner and medical instructor who correlates laboratory diagnosis with medical study.

DISEASES OF THE GALLBLADDER AND BILE DUCTS. By Waltman Walters, B.S., M.D., M.S. in Surgery, Sc.D., F.A.C.S. Head of Section in Division of Surgery, The Mayo Clinic; Professor of Surgery, The Mayo Foundation (University of Minnesota); and Albert M. Snell, B.S., M.D., M.S., in Medicine, F.A.C.P., Head of Section of Division of Medicine, The Mayo Clinic; Professor of Medicine, The Mayo Foundation (University of Minnesota). 65 pages with 342 illustrations on 195 figures. Published by W. B. Saunders Company, Philadelphia and London, 1940. Price: $10.00.

A very exhaustive study of this system from both the surgical and medical viewpoints. It is typical of Mayo Clinic productions. An essential book for the surgeon and internist.

MANUAL OF FRACTURES, DISLOCATIONS AND EPIPHYSEAL SEPARATIONS. By Harry C. W. S. de Brun, M.D., F.A.C.S., Adjunct Professor of Surgery, New York Polyclinic Medical School and Hospital; Associate Visiting Surgeon, Swedish Hospital, Brooklyn; Consulting Skeletal Surgeon, New York Police Department; Member, Association Francaise de Chirurgie. Published by The Year Book Publishers, Inc., Chicago, 1939.

A very practical discussion of the treatment of fractures, dislocations, and epiphyseal separations with excellent illustrations as to methods of treatment and types of fractures. Many of the questions commonly coming to mind are fully and completely answered.

PNEUMOCONIOSIS (Silicosis), The Story of Dusty Lungs. A Preliminary Report by Lewis Gregory Cole, M.D., Director of Silicotic Research, John B. Pierce Foundation, New York City; and William Gregory Cole, M.D., New York City. Published by John B. Pierce Foundation, New York, 1940. Price: $1.00.

The subtitle of this book expresses the nature of the book since it is written as an interesting and scientific story of silicosis. The appendix includes two reprinted articles by the author on the roentgenologic diagnosis and on the dyspnea of silicosis. A very readable and worthwhile book.

HANDBOOK OF ORTHOPEDIC SURGERY. By Alfred Rives Shands, Jr., B.A., M.D., Medical Director of the Nemours Foundation, Wilmington, Delaware; Associate Professor of Surgery in Charge of Orthopedic Surgery, Duke University School of Medicine, Durham, North Carolina (on leave of absence). In collaboration with Richard Beverly Raney, B.A., M.D., Associate in Orthopedic Surgery, Duke University School of Medicine. Illustrated by Jack Bonacker Wilson. Published by The C. V. Mosby Company, St. Louis, 1940. Price: $4.25.

This book, originally published in 1937 to present the consensus of opinion in the treatment of various orthopedic and traumatic surgical conditions, has been revised to include new and accepted forms of therapy. It is very concise and specific, well illustrated by drawings. The bibliography is unique in that special references are named for each condition. Especially valuable to the general practitioner.

CANCER OF THE BREAST AND CANCER OF THE UTERUS. By Marion Ellsworth Anderson, A.B., M.D., Clinton, Iowa. Second Edition. Published by Allen Printing Company, Clinton, Iowa. Price $3.50.

A concise summary covering two common malignancies. It is written, not alone for the man in general practice and the registered nurse, but for the surgeon, the radiologist, the pathologist. It is right up to the minute. The cuts and diagrams are well chosen and instructive. A manual every physician could well afford to read.

INJECTION TREATMENT OF HERNIA, HYDROCELE, GANGLION, HEMORRHOIDS, PROSTATE GLAND, ANGIOMA, VARICOCELE, VARICOSE VEINS, BURSÆ AND JOINTS. By Penn Riddle, B.S., M.D., F.A.C.S., Assistant Professor of Clinical and Operative Surgery, Baylor University, College of Medicine; Director of the Varicose Vein Clinic, Parkland Hospital, Dallas, Texas. 290 pages with 153 illustrations. Published by W. B. Saunders Company, Philadelphia and London, 1940. Price: $5.50.

This volume includes all those conditions to which the injection method of treatment may properly be applied. "In properly selected cases the results of the injection treatment are striking, and the methods can often be combined with surgery to produce results which are superior to those of either method alone." The author describes many injection procedures which should aid the practitioner in increasing his office treatment.

PRECLINICAL MEDICINE, Preclinical States and Prevention of Disease. By Malford W. Thewlis, M.D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City; Special Consultant, Rhode Island Department of Public Health; Associate Editor, Medical Times (New York), and Author of Geriatrics. A William Wood Book. Published by The Williams & Wilkins Company, Baltimore, 1939. Price: $3.00.

This is a book dealing with preventive medicine in its true and complete sense. The author emphasizes throughout, the earliest symptoms of various conditions which may affect the human body and outlines methods of preventing the conditions from becoming disabling.

ART IN EYEGLASSES, What to Wear and Why. By Frank Graham Murphy, M.D., Mason City, Iowa. Price: $1.00.

A treatise on the art of selecting eyeglasses that conform to the rhythmic lines of the face. A short profusely illustrated treatise on selecting eyeglasses that harmonize with the types of facial configurations.

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ATOPIC AND CONTACT DERMATITIS

By Dr. Franz Blumenthal, Ann Arbor, Michigan

The term eczema is not a designation of a definite type of skin disease but should be applied to the whole group of cutaneous eruptions, in which inflammatory changes, such as vesicles, papules, local erythema or edema feature the clinical picture primarily or secondarily.

In skin hypersensitivity there are two distinct types of allergy, which have to be strictly distinguished, the first, in which the sensitivity of the skin is only increased in degrees, comprehends the contact dermatitis. The second, in which there is an entirely new form of reaction not occurring in a normal individual, comprehends neurodermatitis and the urticarial erythematous eruptions.

Only in a relatively small group of cases is it possible to find out the excitant by the skin test, and often it is not possible to determine whether we are dealing with hypersensitivity or with toxic or traumatic influences. Specific desensitization has proved of value in neurodermatitis and in the urticarial group; in contact dermatitis only when due to plant oils.—*Transactions of Michigan Allergy Society,* November 17, 1936.

* * *

URTICARIA OF THE SERUM SICKNESS TYPE

By Dr. G. L. Waldbott and M. S. Ascher, M.D.
Detroit, Michigan

We believe that there are two types of urticaria. One, allergic, characterized by a personal or family history of allergy, positive skin reactions, eosinophilia and other well-known clinical features. The other linked up with serum sickness which we do not consider as an allergic disease, but more like an acute infection. Serum disease may possibly be evidence of the development of allergy.

Five such cases are described. There is a definite incubation period of five to nine days and manifestations such as fever, malaise, joint and glandular swelling. In four of the five cases, this condition was brought about by means other than injection; namely, ingestion, contact and infection.

For the purpose of establishing a clinical differentiation between the allergic type of urticaria and the serum sickness type, the characteristics of serum sickness were investigated and the following criteria were noted:

(a) In serum sickness the skin reactivity appears to be of a transitory character. This is indicated by the results of skin and passive transfer tests in 11 patients of serum sickness following injection of horse serum.

(b) No eosinophilia was present in sixteen consecutive cases of serum sickness following injections of horse serum.

(c) The characteristic incubation period and the presence of the symptoms usually associated with serum sickness are of diagnostic significance.

In a survey of 168 consecutive cases of urticaria, only 22 per cent gave satisfactory skin reactions. Considering the great difficulties encountered in making the diagnosis of urticaria of the serum sickness type, and on the other hand, the questionable skin reactivity in such cases, we believe that the incidence of this condition may not be uncommon.—*Transactions of Michigan Allergy Society,* April 22, 1937.

* * *

The Michigan Society of Neurology and Psychiatry will hold its fourth meeting on Thursday, March 14, at the Neuropsychiatric Institute, University Hospital, Ann Arbor. Drs. Dayton Salon, Ralph M. Patterson and E. A. Kahn are included on the scientific program.

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Waukesha, Wisconsin

READING NOTICES

Development of a reasonably accurate yet relatively inexpensive method of applying x-ray examination to large groups of people in tuberculosis case finding was described in a paper delivered before the Radiological Society of North America at its Atlanta meeting. Authors of the paper were Drs. Hollis E. Potter, of Chicago, and Bruce H. Douglas and Carl C. Birkelo, of Detroit. It was found that a 4" x 5" film with an effective focal range slightly smaller than this would answer the requirements. Special equipment was therefore designed by the General Electric X-Ray Corp. for producing such photo-roentgenographs, according to the discussion.

The fluorescent screen used is nearly seven times as fast as the regular fluoroscopic screen, and the lens is also a specially prepared instrument with a rating of F.1.5, and is mounted in a tunnel with the screen at the opposite end so that both can be moved up and down to adjust to the proper level for a patient standing upright. This lens is capable of producing a very sharp image in an area of about 3.7 inches in diameter on the 4 x 5 film.

* * *

The Amebiasis Problem.—A study made by the U. S. Medical Corps, covering every section of the United States, shows that between 5 and 10 per cent of the people probably harbor Endamoeba histolytica (Kagy, Bull. Hyg., *14*:746, 1939). Clinically, the persons infected may be divided into four groups, in which symptoms vary from none appreciable (so-called healthy carriers) to those accompanying acute or chronic amebic dysentery.

Carbarsone, Lilly (p-Carbamino Phenyl-arsonic Acid) is amebacidal in vitro at 1:4,000 and has a marked degree of efficacy in amebiasis in doses which, if conservatively utilized, are relatively nontoxic. Vaginal suppositories containing 2 grains of Carbarsone, Lilly, have given very good results in the treatment of Trichomonas vaginalis vaginitis in the hands of numerous observers.

* * *

"Delsterol" in Oil, as packaged and sold by E. R. Squibb & Sons, is a highly potent, physiologically standardized solution of activated *animal* pro-vitamin D in Oil. The Vitamin D content has been adjusted to 10,000 U. S. P. XI Vitamin D units per gram. Activated animal pro-vitamin D is apparently identical with the Vitamin D formed in the skin on exposure to sunlight or other sources of ultra-violet light and appears to be somewhat more effective in man than the form of Vitamin D obtained by activation of ergosterol.

"Delsterol" is indicated wherever it is desired to administer Vitamin D for prophylaxis or therapy, as to premature infants, in the prevention and cure of rickets, for expectant and nursing mothers, and in disorders of calcium-phosphorus metabolism where there is a deficiency of Vitamin D.

* * *

Fifty undernourished and underprivileged children, selected at random by various hospitals in New York City, were sent to camp for the purpose of determining the nutritive value of vitamin-mineral fortified malted food drinks, according to Shirley Wilmott Wynne, M.D. of New York, reporting in *Archives of Pediatrics,* November, 1939. Before going to camp the children were given complete physical examinations; blood counts and hemoglobin determinations were done. The groups were divided into two groups, as similar as possible, according to general body habitus. A malted food drink (Cocomalt) was added to the diet of the children in Group A, while those in Group B received the same diet but without receiving the malted food drink.

An analysis of the results revealed the following facts:

	Group A	Group B
Average Gain	2.46 lbs.	1.9 lbs.
Average Loss	1.25 lbs.	2.37 lbs.
Hemoglobin and Red Cell Count Improved	28%	16%
Hemoglobin Increased	36%	32%
Red Cell Count Increased	56%	40%

* * *

Some authorities recommend that cod liver oil be given in the morning and at bedtime when the stomach is empty, while others prefer to give it after meals in order not to retard gastric secretion. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she administers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. It is most important that the mother administer the oil in a matter-of-fact manner, without apology or expression of sympathy.

If given cold, cod liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silverplated spoon (particularly if the plating is worn), a glass spoon has an advantage.

On account of its higher potency in Vitamins A and D, Mead's Cod Liver Oil Fortified With Percomorph Liver Oil may be given in one-third the ordinary cod liver oil dosage, and is particularly desirable in cases of fat intolerance.

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PHYSICIAN'S OFFICE EQUIPMENT FOR SALE —Electrocardiograph (Victor X-ray), metabolism machine (Benedict Roth), Alpine sun lamp, diathermy machine, fluoroscope and table (radiograph illum. lamp), adjustable operating table, instrument cabinet, sterilizer (electric), glass top table, Mayo table, enamel instrument table, metal top stool, irrigator, two examining lamps, stretcher with frame and rubber-tired wheels, Dictaphone, pressure sterilizer (gas), and miscellaneous instruments. This high grade equipment may be seen at Cowie Hospital, 320 South Division, Ann Arbor, Michigan, or write Mrs. D. M. Cowie at this address.

ANNUAL DUES

Michigan State Medical Society dues are payable on or before March 31.

The By-laws (Chapter 8, Section 2) read as follows: "Any member in arrears after April 1 of each official year shall stand suspended until his name is properly recorded and his dues for the current year properly remitted."

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Rheumatic Fever

Diagnosis and Treatment*

By Hugh McCulloch, M.D.
Saint Louis, Missouri



Hugh McCulloch, M.D.

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■ Measures generally used in the management and treatment of rheumatic fever and heart disease, must be classified in two groups. First, those of a specific nature used in the control of streptococcus and other infections; second, those used in the control of the rheumatic process indirectly through the secondary factors which are known to modify the disease in its effect on the individual patient. Since the etiology of the streptococcus is not established, and since no specific measures have been found which are effective, little can be said on the first form of treatment. None of the usual biological products have any recognized beneficial effects on rheumatic subjects. At the present time it seems clear that none of the now known drugs of the sulfonamide groups have any demonstrable effects on the streptococcus, which may be the etiologic agent of the rheumatic fever, or on the rheumatic patients. A sufficient and large enough group of rheumatic subjects have been studied in reputable clinics under controlled conditions, to state that sulfonamide is of no value in the treatment of the disease.

This paper is concerned primarily, therefore, with a brief discussion of the principles involved in the management and treatment of rheumatic fever and heart disease through attention to the various secondary factors which influence the course of the disease. Each of these principles has a varying effect on patients. When the physician is confronted with an individual patient, it is necessary that a complete survey and evaluation be made of the patient's clinical picture and problems in order that the necessary measures be used for his benefit. Since rheumatic fever is a disease with many varying manifestations it is certain that treatment must be highly individualized according to the needs of the patient in the judgment of the physician. Clearly also, even tertiary factors must be searched for and controlled, so that complete physical examinations and social surveys must be made. Without careful attention to details, it is unlikely that much favorable effect will result.

Secondary Factors to be Estimated in the Treatment of Rheumatic Fever and Heart Disease

The following factors are considered most important in their effects on patients with rheumatic fever and heart disease. It is necessary to recognize their presence and properly estimate their relative value in each patient. While others may occasionally be present, it is safe to say that these are always present.

Heredity.—There is no clear evidence that heredity plays a part in the incidence of rheumatic fever, but there is presumptive evidence that the disease may be modified by a "constitutional type," whatever that vague term may

*From the Department of Pediatrics, Washington University School of Medicine. Read at the annual meeting of the Michigan State Medical Society, Grand Rapids, September 20, 1939.

mean. It is proper to advise that rheumatic subjects do not marry, and to look carefully for rheumatic offspring in families with histories of rheumatic fever. Secondary cases of rheumatic fever in collateral members of the family are due more probably to contact infection and coincidental environmental influences than to direct heredity.

Social Status.—The incidence of rheumatic fever is unquestionably higher in the lower social strata where poverty, filth, malnutrition, uncorrected infections and defects and unfavorable living conditions exist. Cardiac clinics draw the largest population from poorer sections of cities where these conditions exist. The disease is far less frequent in private practice among the "well to do," and especially among the medically intellectual "well to do," that is, among people who pay attention to matters of health, especially for their children, and attempt to provide favorable opportunities for their rearing. When a patient is found in this group, the disease is apt to be less severe and with a more favorable prognosis. Contrariwise, when a patient comes from the lower group, everything must be done to correct these deplorable social conditions.

Climate.—Climate and season of the year play an important part in the incidence and course of rheumatic fever. The larger number and the severest cases occur in regions of bad climate, especially in the temperate zone and in the spring of the year. It has been established that 75 per cent of attacks occur in the three spring months, and that attacks at this time of the year are apt to be more severe. It is not allowable to explain in detail or even to mention all the climatic relationships which exist in rheumatic subjects. Known subjects should be watched more closely and treated more carefully during periods of bad weather, particularly during the spring months. Removal to a better and more suitable climate is advisable, and, if not possible, attempts should be made to duplicate artificially improved climate conditions.

Age of Patient.—Rheumatic fever occurs at all ages, from infancy and early childhood to advanced age. The case frequency curve, however, is in the first five years, there being a slow gradual rise to about six years, then a rapid rise in the next decade to fifteen years. The peak of first attacks and of the number of attacks is about 12 to 15 years. Then there is a steady fall in the next decade to twenty-five years, after which the curve flattens out gradually, and almost disappears. Whether certain types of arthritis occurring in adults past maturity may have some relationship to rheumatic fever is still an interesting unsolved problem. Younger children generally have more severe attacks of rheumatic fever. First attacks are very common, especially with vague beginnings which are so easy to confuse with various conditions simulating rheumatic fever, namely, fatigue, flat feet and other postural defects, and malnutrition. Younger children are more apt to have proliferative attacks with few leading symptoms or signs until the disease is well advanced.

Number of Attacks.—The first attack is always the most important. It is often the only one, with either complete recovery or a rapidly fatal result. It is usually in the young child. It is more difficult to diagnose, and the symptoms are less cause to bring the patient to the physician. Subsequent attacks may vary in their major manifestation, one being characterized by joint pains, one by chorea, and another by some form of heart disease, or by any one or all of the signs of rheumatic fever. Succeeding attacks are apt to indicate the exudative nature of the disease with a more favorable prognosis. It is probable that there is some injury to cardiac tissue with every attack, though many times the effect may be very slight.

Type of Attack.—It is important to recognize the predisposing and preceding events of each attack in order to protect against subsequent attacks, especially when acute flare-ups of tonsillitis or upper respiratory infection occur. Prognosis and principles of treatment will be considerably modified by the nature and type of the attack. The exudative or cyclic attacks characterized by joint pains, chorea and other exudative tissue response are more frequent and more susceptible to symptomatic treatment, have a better immediate and ultimate prognosis than proliferative or continuous attacks characterized by absence of joint pains and fever, by more profound changes in the fixed tissues of the body, particularly the heart. The larger number

of cases of adhesive pericarditis, mitral stenosis and aortic valvulitis and myocarditis with nodules occur in the proliferative type, and the prognosis is correspondingly worse. Proliferative attacks are more frequent in young children.

Location and Degree of Injury to Local Parts of the Body.—Rheumatic fever affects many parts of the body, principally the heart, the brain, the joints, less frequently the lungs and kidneys, maybe at times other glandular tissues of specialized structure. The characteristic process is an injury to the small terminal arterioles. There is no explanation of why the heart is most frequently affected. In addition to the lesions in the organs mentioned, permanent changes may occur in the aorta and any of its large branches. It is, of course, most important to recognize in an individual patient just which area is involved, to look out for signs in other areas with subsequent attacks, and to apply measures which are appropriate to the part affected and the degree of injury. The cardiac lesion is the most disabling in chronic cases and has received the greatest amount of medical interest. An attack may be characterized by widespread change, rapidly and continuously progressive in severity. The larger number of children with chorea have a rheumatic encephalitis. Clinically, the changes that occur in the heart are the only permanent ones, all others clearing out completely when the attacks subside. There is no explanation for this fact.

Course of Rheumatic Fever

A rheumatic patient can always be placed in one of three groups which represent the course of the disease.

Rheumatic Fever Without Heart Disease.—There is the stage in which a rheumatic state with one or more signs is sufficient to make the diagnosis. Every patient at one time passes through this stage and those who recover return to it eventually. These patients do not have recognizable heart disease though it is probable there is some degree of cardiac injury in every case of rheumatic fever. The rheumatic process in this stage is more or less widespread in the body, often with few localizing signs, especially in children. The process may disappear in time, never to return. There may be recurring attacks in the same stage or the process may extend further to the second stage, when it is evident that rheumatic heart disease is present.

Rheumatic Heart Disease Without Circulatory Failure.—In the second group, which has received the greatest medical attention in the past, the cardiac lesion occupies the center of interest. Either the rheumatic process is active in the heart, producing continuous or recurring changes in one or more areas, or the process subsides into a quiescent or inactive period, or the process may recede and disappear. Repeated examination must be made to determine the trend of events. The principles of treatment in this second stage will be used according to whether the rheumatic process is or is not active. The means which can be used to control the activity in the heart are limited in number and effectiveness and must be combined with those used for the control of the rheumatic infection in general. Under these circumstances it is assumed the heart is able to maintain adequate circulation and at least the patient suffers subjectively very little, if at all, from the disease. It can be stated that patients in this second stage may recover completely with normal hearts, but such instances are rare and against the rule. The larger number who recover, remain with an inactive healed scarred cardiac lesion which may or may not be of further importance. Instances of satisfactory healing are frequent enough, and, excluding independent circulatory disease, such patients return to useful, if somewhat protected, lives.

Circulatory Failure.—In a third group there is a failure of circulation with cardiac "angina," disturbance of circulation or congestive failure, and destruction of myocardial tissue. Circulatory failure may appear early in the course of the rheumatic process, even simultaneously with the heart disease itself, or may be delayed for some time, even years, after the initial attacks. Patients who develop signs of circulatory failure rarely recover completely so that when such failure is once diagnosed, it in turn occupies the center of the stage and its control should occupy the chief medical attention. Unless it can be brought under immediate control, little else matters much. The onset of circulatory failure is usually late in the course of rheumatic heart dis-

ease, a distinguishing point, as compared with senile, degenerative or hypertensive heart disease of later life, in which the circulatory failure usually is the first symptom which brings the patient to the physician.

Treatment

Rheumatic Fever Without Heart Disease.—Patients in this stage are grouped arbitrarily as Class F by the American Heart Association. They are all potential cardiac patients.

During periods of activity, treatment consists of bed rest for the joint pains, toxemia and tachycardia. Aspirin relieves the painful joints quickly and should be given in doses sufficient to produce results; it is rarely necessary to use any other drug for this purpose. It can be given in tablet form with one tablet of milk of magnesia for each aspirin tablet at four hour intervals. Local treatment of the joints is rarely used and immobilization is done best by the patient himself. The fever is usually reduced by the aspirin concurrently with the joint pains. **There is no harmful effect of aspirin on the heart. The drug should not be given after relief is obtained since it has no effect on the rheumatic process itself.** Any active foci of infection such as tonsillitis or posterior naso-pharyngitis, should receive adequate attention. The diet should be simple, with an abundance of liquids, especially fruit juices. Vitamin C deficiency is not a factor in the cause of rheumatic fever. When the acute attack subsides, the diet should include adequate protein and iron-supplying foods, such as meat, eggs, and green vegetables.

No attempt should be made to correct the accompanying physical defects or causes of the rheumatic attack until the process has reached an inactive stage. In the exudative cases this can be assumed in about two weeks after all acute symptoms and signs such as fever, tachycardia, delayed sedimentation rate, joint pains and leukocytosis have returned to normal. Then such primary causes as active foci of infection and contact with carriers of infection can be investigated and corrected as far as possible. Attention should then be given also to exercise, rest, outdoor exposure, sleeping and housing, return to school, diet, etc. All this time the patient should be kept as near to a normal routine as his signs will permit. Probably the most important medical and social activity for the control of rheumatic fever and heart disease, both in the individual and from the public health standpoint, are to be considered in this particular stage. The patient may not arouse much medical excitement and interest, but he is in greatest need of adequate medical care, especially from the standpoint of preventive medicine.

Diseased tonsils should be removed as soon as expedient for each recurring attack of tonsilitis may be followed by another attack of rheumatic fever. It is true that more children with rheumatic fever have diseased tonsils than a group of control children, but parents should not be told that removing tonsils will cure rheumatic fever nor prevent either first or second attacks. Such children with bad tonsils removed are better off, their general health is usually improved, and they have fewer activating infections. But the rheumatic process once initiated in a child continues on unaltered, whether the tonsils are in or out.

A most important phase of the tonsil question in connection with recovery from rheumatic fever and recurring attacks, is what happens to the naso-pharynx after tonsillectomy. Are the tonsils completely removed with no remaining stubs of lymphatic tissue? What is the condition of the lingual tonsil and other lymphatic tissue in the naso-pharynx and on the tongue? Unless these areas are medically clean and kept clean, probably many disappointing results will happen after tonsillectomy. This applies to any focus of infection. The nose and throat study has usually just begun with tonsillectomy. Rheumatic patients with nasal allergy present a particularly difficult problem.

When signs of heart disease appear in either the period of active rheumatic fever or later, the principle of treatment changes to include such measures as we have to relieve the cardiac involvement, and the patient passes into the second stage.

Rheumatic Heart Disease Without Circulatory Failure.—Patients in this stage are grouped as Class I. They all have organic (structural) heart disease.

Treatment of the patient with rheumatic heart disease consists primarily of bed rest during the

entire period of rheumatic activity. The effect of bed rest is to reduce the heart rate by removing postural demands and exercise response of the circulation, and by removing excessive demands on the heart for more blood at a faster rate. The tachycardia may be the result of the toxemia, in fact often is, and consequently bed rest may produce no significant fall in the heart rate. But rest should be continued until all signs of rheumatic activity have ceased. This time varies all the way from a few weeks in exudative, to two or more years in proliferative attacks. Again, so long as signs of rheumatic fever can be noted, patients should remain as completely quiet, mentally and physically, as possible.

Patients with an active myocarditis may be profoundly ill in a manner similar to the acute toxic myocarditis of diphtheria, with prostration, vomiting, collapse and death. Or, they may show few or no clinical signs of the myocardial infection save cardiac enlargement. Digitalis is of little or no value in such cases, and at times may be distinctly harmful. It should not be given until signs of congestive failure appear. Hypertonic glucose with or without insulin has been of value. Other drugs have no proven value though there is evidence to suggest that certain ones in the xanthine group may influence coronary blood flow and in other ways benefit the myocardium.

No therapeutic measures are known which influence the lesion on the valvular or mural endocardium. The appearance of progressive stenosis in a mitral valvulitis is of serious prognostic importance. It is associated with increasing pressure in the pulmonary circulation and is frequently followed by auricular fibrillation if the patient lives long enough. Little can be done to influence these events. It is doubtful if valvular lesions play an important part in the progress of the rheumatic patient.

Pericarditis in cases with exudative attacks produces a stormy scene, and the picture is not unlike an attack of lobar pneumonia. Precordial pain, breathlessness and cough, high fever and prostration may make the attack simulate pneumonia closely. Such patients require morphin in liberal amounts, precordial icebags, elevation of head and chest in bed, and occasionally oxygen. The attacks may be less severe. It is rarely necessary to remove the fluid in the pericardial sac. Some fluid is present in every case, but rarely does the amount embarrass the heart, and in a short time it disappears spontaneously. Adhesive pericarditis, occurring so frequently in the proliferative type, is not amenable to medical treatment during the active stage.

When the rheumatic activity has disappeared, many important questions arise. These are principally related to the response of the heart to exercise, exertion and excitement. Since the response of the heart to exercise depends primarily on the state of the myocardium, one must determine carefully, from time to time, the size of the heart and its rate. Blood pressure estimation is also of some value. So long as the heart is decreasing in size, or at least remaining stationary, and so long as the basal pulse rate is within normal limits for a given individual, increased exercise may be continued. Observations for one day a week, or one week a month, accurately made and recorded, are necessary. **Many children have been kept in bed too long when under medical supervision nearly as often as not long enough. It is as important to release such children from complete bed rest at the proper time as it is to institute such rest. A régime of balanced exercise and rest is best.** The question of attendance at school is a most important one. Cardiac children do best when in school, and it should be a first goal to be attained in planning additional exercise. Needed rest can be provided at home after school hours, and on holidays. Playground exercise at school and such routine which is necessary in class work, as climbing stairs, can usually be managed with a few slight concessions. Harmful competitive games and exercise are not introduced in the curriculum until high school age. Cardiac children should not be allowed to swim even in a supervised pool, particularly when mitral stenosis is present.

Patients with rheumatic heart disease are safe for a carefully administered anesthetic which may be necessary for such operations as tonsillectomy, appendectomy and other surgical urgencies and emergencies. Children with heart disease who are candidates for a tonsillectomy should receive careful preoperative isolation and preparation, and should be watched closely for about two weeks postoperative for signs of rheumatic fever.

The reappearance of signs of rheumatic activ-

ity calls for immediate cessation of all exercise. Continued improvement in the various secondary environmental factor must be sought to prevent further changes in the heart or recurring attacks of rheumatic fever.

Circulatory Failure.—During the course of active rheumatic heart disease, the heart may be unable to maintain an adequate circulation, even under basal conditions of rest. The inadequacy may be slight but is always significant of myocardial injury. Such patients belong in Class IIa, IIb, or III, of the American Heart Association, depending on whether the failure is present only in slight degree and on severe exertion (Class IIa), whether it is present intermittently but on slight exertion and for long periods (Class IIb), or whether it is continuous (Class III). Congestive failure is always serious in rheumatic heart disease and signifies an advanced lesion with an unfavorable prognosis. The onset of failure comes late in the course of the disease or terminally in the very acute fulminating rheumatic toxemia.

The treatment for circulatory failure in rheumatic heart disease is similar in every respect to failure in any other form of heart disease.

There are several features of circulatory failure which require special treatment and there is no time when careful judgment is more necessary for the intelligent management of patients.

Breathlessness and precordial distress are best treated by oxygen and morphine or one of its derivatives. Present-day administration of oxygen is safe, easy, and economical, and highly efficient. The relief from breathlessness is often instantaneous and complete. Its use should not be delayed until there is great urgency. Morphine for cardiac distress is also a satisfactory remedy. For children with milder forms of distress, codein by mouth at night in single large doses is safe and satisfactory. It must be given with care, when there is dyspnea, for fear of slowing the respiration too much. Also, one should be sure there is no large pleural or pericardial effusion before using oxygen or giving large doses of narcotics.

Anemia and Cyanosis.—During the course of an active rheumatic infection there is usually a considerable anemia from the toxemia. At times this is severe enough to require blood transfusions but always requires attention to dietary factors which make hemoglobin. When such patients develop circulatory failure it is often true that no real cyanosis is present because the anemic blood cannot reach a stage of visible cyanosis. These patients, therefore, should never have blood removed for cyanosis or a high venous pressure, as their blood would be further depleted. Transfusions may be in order rather than "blood letting."

Capillary stasis with edema requires one or several drugs which may be tried in turn (never together) or used when the nature of the stasis is apparent. In myocardial weakness with dependent edema, digitalis is preëminently used to increase muscle tone and irritability. Its action is directly on the cardiac muscle cells. When there is a general loss of vasomotor tone and edema, with low blood pressure, some drug like theocalin may be used with satisfactory results. Drugs of this class are particularly useful in circulatory failure during severe active, acute myocarditis. Metallic substances similar to salyrgan are useful cardiac drugs to relieve capillary stasis and edema. They must be given when the patient is free from any digitalis and are most effective when given with ammonium or potassium chloride.

When *disturbances of mechanism* occur as a part of myocardial injury, they can be recognized as: (a) Extrasystoles at various times, (b) auricular or ventricular fibrillation, and (c) heart block. Extrasystoles indicate an increased irritability of the heart muscle and generally are a contraindication to the use of digitalis, which also increases irritabilty. Digitalis is indicated in auricular fibrillation and may itself produce ventricular fibrillation. There is no treatment for heart block.

Patients with circulatory failure should have diets of limited fluids, limited salt, low fat, medium protein, and high starch content. The diet should fully include easily digested foods, ample or added vitamins and foods with blood-building qualities. Satisfactory diuresis will sometimes follow an exclusive milk and orange juice diet for several days.

Sulfanilamide

in the Treatment of Mooren's Ulcer*

By Marvin J. Blaess, M.D.
Detroit, Michigan

Marvin J. Blaess, M.D.

Detroit Institute of Technology and Wayne University, A.B. University of Michigan, M.D., 1932. Two years on staff of the Eye Clinic at the University of Chicago. Four years associate surgeon, Iowa Cataract Clinic, Des Moines, Iowa. Senior eye surgeon, Evangelical Deaconess Hospital, Detroit.

■ The precise etiologic agent in Mooren's ulcers is quite obscure. In many cases all present forms of treatment fail to save the eye from destruction or serious impairment of vision. Naturally, under these circumstances, any new effective method of treatment would be a welcome addition to our therapeutic armamentarium. Fortunately, the condition is only rarely encountered.

Although no definite conclusions can be drawn from this case because of the multiplicity and varied nature of the therapeutic measures instituted—yet it did seem that the turning point in the course of the disease coincided with the administration of sulfanilamide. The appearance of certain symptoms of toxicity prevented a more conclusive trial of the drug in a higher blood concentration. Further study and observation on cases of Mooren's ulcer in patients who can better tolerate the drug in more adequate dosage is necessary before definite conclusions can be reached regarding the therapeutic value of sulfanilamide in this condition.

A white housewife, aged sixty, appeared April 22, 1939, complaining of severe pain, redness and tearing in her left eye. Examination revealed a marginal ulcer of the left cornea in the upper nasal quadrant. The defect extended for 4 mm. along the corneal margin and varied in width from 0.5 m.m. to 1.5 mm. The entire base of this ulcerated area was covered with a grayish exudate and the upper extremity of it ended in a curved tip. The margins were undermined and had a gray overhanging edge.

The patient was given ambulatory office treatment. The left lacrymal passages were irrigated with mild antiseptics. At various times the ulcerated area was cauterized once with tincture of iodine and twice with mercurochrome paste. One per cent optochin in ointment form was prescribed for daily use by instillation. Crystalline vitamin B_1 was prescribed for oral use.

Under this treatment the ulcer gradually enlarged until it measured 8 mm. in length and 2.0 to 3.0 mm. in width, extending toward the center of the cornea. At this point the patient was admitted to

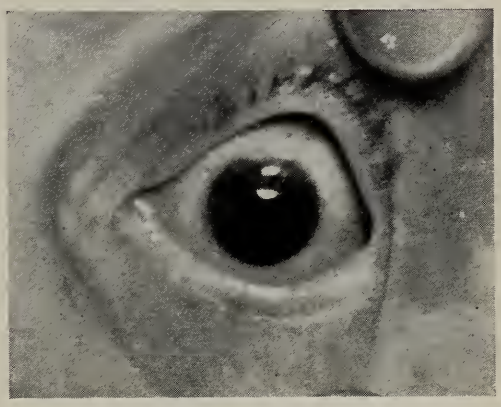


Fig. 1.

the Evangelical Deaconess Hospital and typhoid vaccine was given intravenously and optochin locally with infra-red heat. This treatment had no apparent effect in checking the spreading of the ulcer.

Sulfanilamide was then given orally until the blood sulfanilamide level reached 4.0 mg. per cent. At this stage, the patient became slighly confused, irrational, and cyanotic so that the medication was continued in slightly smaller dosage. Instillations of optochin ointment were continued locally. During one week of this régime the ulcer became stationary and did not further increase in size. The grayish exudate covering the base cleared from all except the margins but the entire area stained deeply with fluorescein.

At this stage the margins of the ulcer were electrocauterized and a conjunctival flap was drawn down and sutured so that it covered the entire corneal defect. The sulfanilamide was continued for four days more, at which time the conjunctival sutures were removed. As the flap retracted, the corneal defect became nicely epithelialized and did not stain at all. One week after the operation, the eye was pale, quiet and comfortable. A moderate translucency of the cornea remains at the site of the ulcer. There is no visual impairment, as the ulcer did not quite reach to the center of the cornea (see illustration).

2707 Book Tower Bldg.

"The essential principles of nutrition established by research are that green vegetables and fruits are not luxuries but necessities. . . .

"Their content of vitamins, minerals, organic acids, sugar and water, together with their final alkaline reaction in the body, makes them (citrus fruits) most valuable in helping to meet the requirements of a well-balanced diet, the principles of which should be observed in every routine hospital diet, and not violated in a special diet. . . . Their flavor and tartness make them acceptable when other food cannot be taken."—From *Citrus Fruits and Health* by Florida Citrus Commission.

Surgically Difficult Growths

of the Female Pelvic Viscera*

By Arthur H. Curtis, M.D.
Chicago, Ill.



Arthur Hale Curtis, M.D.,

M.D., Rush Medical College, 1905; LL.D., University of Wisconsin, 1935; Chief of the Gynecologic Service, Passavant Memorial Hospital, Chicago; Professor of Obstetrics and Gynecology, and Chairman of Department, Northwestern University Medical School.

Fascia and Ligaments

■ In a recent article concerned with cystocele, Dr. Barry Anson and I demonstrated that, after removal of the intestines, peritoneum and subserous tissue, the firm fascia which lines the muscles of the pelvic floor is reflected upward as a collar over each of the three hollow viscera, namely, the bladder, the vagina and uterus, and the rectum. The relatively thin collar around the bladder is in apposition with the heavier vagino-uterine collar, the bladder pillars constituting a connecting bridge.

More recent observations in the operating room correlated with anatomical dissections have demonstrated the continuity of the investing fascial collars with the supporting structures at a higher level. Proceeding from above downward, the fascial investment over the uterus first becomes distinct posteriorly slightly above the level of the uterine attachment of the uterosacral ligaments. Anteriorly, there is a remarkably broad attachment of the round ligaments down to the level of the broad ligament branch of the uterine vein; immediately below this point the fascial collar becomes dissectable.

Lateralward, the uterovaginal and vesical fascial coverings become continuous with the Mackenrodt ligament, which spreads out, tent-like, to become inserted, fan-shaped, into the fascia overlying the obturator muscle and muscles of the pelvic diaphragm. With the peritoneum removed, one sees that Mackenrodt's ligament really begins, above, at the level of the obliquely coursing broad ligament branch of the uterine vein, and that there is a "core" consisting of this vein and the slightly more inferiorly placed uterine artery and accompanying vein, all enclosed in a vascular compartment; one notes also, posteriorly, that the uterosacral ligament is continuous laterally with and really is an integral part of Mackenrodt's ligament, as well as continuous with the uterovaginal fascial collar. Upward and downward extensions of the fascial sheath surrounding the vessels constitute firm investments accompanying the ascending and vaginal branches of the uterine artery and vein.

Ureters.—The course of the ureters is a topic of never ending interest and concern, even to those most experienced. Noteworthy surgical landmarks therefore merit a few words: Upon entering the pelvis the ureter lies immediately medial to the attachment of the infundibulopelvic ligament at the pelvic brim. In peritonization, after removal of the uterus together with the ovaries, the ureter is therefore hazardously near, just beneath the peritoneum, and the peritonizing suture should never be deeply placed on the medial side without preliminary palpation of the ureter. Located 4 cm. from the uterus at the level of the internal os, the ureters are 1.5 cm. lateral to the lowermost cervix at the point of their greatest proximity to the uterus; in their downward course they lie beneath the tent-like fan-shaped lateral extensions of Mackenrodt's ligaments, crossing under the uterine vessels, and situated approximately 8 cm. apart at the level where the pelvic surgeon usually places clamps on the vagina in performing a simple complete hysterectomy. Another landmark is afforded by the bladder pillars, the ureters being located just anterior to and 1 cm. lateral to the pillars. In the detail of radical hysterectomy for cancer it is helpful to know that the ureters enter the bladder obliquely convergent, ensheathed in extensions of the musculofascial covering of the bladder. Also worthy of emphasis here, there is a considerable fascial investment which extends along the ureter, thus creating a pathway for lymphatic drainage from the cellular tissues contained within Mackenrodt's ligament.

Bladder.—The anatomy of the bladder in relation to pelvic surgery intrigues me. The mus-

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culofascial investment is fortunately somewhat thicker on the inferior surface and is greatly strengthened by the contiguous very much thicker musculofascial collar of the vagina and cervix. At complete hysterectomy, however, we separate in the plane between the vesical and the cervicovaginal collars, where the vesical fascia is much thinner, with the result that the integrity of the bladder wall is often endangered. This I have demonstrated repeatedly through the simple expedient of pre-operative instillation of 20 c.c. of 1:1,000 methylene blue solution into the empty bladder, as a safeguard: the blue solution shines through unduly denuded areas, warning of danger, and it spills in case of injury. In this connection, I am impelled to emphasize the frequency with which one invades the musculofascial envelope of the bladder in the routine of complete hysterectomy, also the hazard of tissue forceps injury and leakage from the bladder, doubtless accountable for some of the cases of fistula heretofore ascribed to the too deep placement of sutures. The fascial wings over the bladder spread far laterally, and the bladder and ureter tend to fall farther laterally upon surgical dissection than one might surmise. Therefore, in performing a magnified Wertheim operation, zealous removal of all available cellular tissue in the deep pelvis lateral to the ureter is somewhat hazardous.

Management of Surgically Difficult Growths

With added experience I have become impressed that, with dissection along fascial planes, in the removal of most genital pathology the operated tissues may be made to fall apart, and that they thereafter fall readily together in completing the operation. Such blunt dissection is inevitably more gentle, and tissues united without tension heal kindly, with lessened distress during convalescence, and a minimum of morbidity and mortality. In this connection I trust that you who are more skilful than I will forgive a suggestion that our patients might be better served by more careful notation of the anatomy, more scrutinizing observation of the pathology, and more deliberate thought concerning the revamped physiology which is to be left in our wake. This does not imply that work may be done without awareness of the fact that wastefulness of time increases morbidity and mortality.

Cases of carcinoma of the body of the uterus, or of the lower corpus or endocervix, likewise cases of pelvic endometriosis, may involve the bladder sufficiently to make hysterectomy hazardous. I shall not dwell on those cases in which resection of the bladder is indicated. In all other such instances the technic is essentially as simple as in the performance of an ordinary hysterectomy if one leaves the bladder undisturbed until the uterus is otherwise freed. Then, with excellent visibility and perfect control, the uterus separates from the bladder without effort, along natural lines of cleavage. With this procedure, as well as in those difficult adherent cases in which it appears expedient to separate the bladder according to the more usual technic, or perhaps with approach from the lateral aspect, methylene blue solution in the bladder is a safeguard.

Let us now consider obliterating lesions of the cul-de-sac with welding of the rectum to the vagina and cervix. It is self-evident that cases of endometriosis in which both ovaries are to be removed require no cul-de-sac surgery. But if one ovary is to be spared, also in cases with other tumorous lesions or cellulitis of the cul-de-sac, dissection of this region may be indicated. Here, analogous to the procedure in cases with a firmly welded bladder, the cul-de-sac dissection may advantageously be reserved for the final step, which makes the technic less formidable, the hazard of rectal injury minimal.

Present-day emphasis on simplification of the technic of complete hysterectomy by generous mobilization of the bladder and, particularly, by freeing the uterus posteriorly and posterolaterally, has militated against our appreciation of other procedures. In cases with firm fixation of the bladder and an immobile rectum, a complete hysterectomy can be accomplished from side to side with facility, and with greater ease and less hazard, dissection of these viscera reserved for the final steps of the procedure, with separation of the more inaccessible viscus last.

Among the reasons for the 50 per cent death rate from corpus cancer are (1) the tendency to tubal spill with extension to the ovary and peritoneum and invasion of the contiguous cellular tissues, (2) extension of lower corpus growths either directly or via the endocervix into the lymphatics of the vascular compartment and cellular tissues of Mackenrodt's ligament. Such

extensions are often patently unilateral; those from ovarian growths, tubal carcinoma and endometriosis may also be unilateral. In many such cases the customary simple removal of the uterus and adnexa may advantageously be supplanted by unilateral simple division of the tissues on the uninvaded side of the uterus, with exposure of the ureter and a Wertheim procedure on the side of greater invasion, a "magnified" Wertheim complete eradication of all removable structures resorted to in extreme cases.

A great many years ago we became smugly complacent upon learning that removal of a major pelvic tumor mass often spares life for many years, despite failure to eradicate the growth in its entirety. Now we know that extensive surgery with exposure of the ureter and "housecleaning" of all available cellular structures, usually unilateral, sometimes bilateral, greatly increases the expectancy of selected patients of this group, even those with an extensive omental cake and implants which are not removed, which may be controlled by x-ray therapy.

Physicians and Cultists

Many inquiries concerning the relations of the various cults to the regular profession have been received. The inquiries pertain particularly to the osteopaths and the optometrists. . . . Some of our members are giving lectures in osteopathic and optometric schools and addresses before their societies. Some members are associated by a common waiting room in offices with them. Some members are by mutual agreement professional associates principally in the field of surgery. There are some instances of partnership in practice. All of these voluntarily associated activities are unethical. Such relations certainly do not "uphold the dignity and honor of (our) vocation" or "exalt its standards." In case of emergency no doctor should refuse a sufferer knowledge or skill which he possesses to the sufferer's harm but this is quite a different matter from that of a consultant or practitioner who by consulting or practicing with him assists a cultist to establish himself as competent and on the same basis of medical knowledge as a doctor of medicine. By the very nature of the education and training of each, a consultation with a cultist is a futile gesture if the cultist is assumed to have the same high grade of knowledge, training and experience as is possessed by the doctor of medicine. Such consultation lowers the honor and dignity of the profession in the same degree to which it elevates the honor and dignity of the irregular in training and practice. Practicing as a partner or otherwise has the same effect and objection. Teaching in cultist schools and addressing cultist societies is even more reprehensible, for such activities give public approval by the medical profession to a system of healing known to the profession to be substandard, incorrect and harmful to the people because of its deficiencies. There hardly can be a voluntary relationship between a doctor of medicine and a cultist which is ethical in character.—*Journal A.M.A.*, April 30, 1938.

A Sulfanilamide Failure

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■ SINCE DISEASES OF THE URINARY TRACT are peculiarly prone to be multiple, it should be remembered that a patient with gonorrhea may also have pathology of the upper urinary tract.

The general principle that adequate treatment can only be based on thorough diagnosis and on demonstration of all lesions in a patient is well exemplified in this example.

The patient, J. K., male, twenty-four years, without history of previous venereal disease, was exposed five days before examination. A slight urethral discharge was present and the urine was slightly cloudy in both glasses of the two-glass test. The smear showed typical gonococcus organisms.

His past history revealed no history of previous venereal disease. A physician had told him there was some albumen in the urine four years ago. He had been circumcised and his tonsils removed six years ago. Treatment consisted of sulfanilamide, grains sixty daily, with sodium bicarbonate for two weeks. Because there was heavy pus in both glass tubes, which settled quite densely, and no pain on urination or rise in temperature, pathology of the upper urinary tract was suspected and a flat x-ray advised. Cystoscopy was contraindicated because of the recent gonorrheal urethritis.

The patient refused this and went to another doctor who told him the prostate was the cause of his trouble and gave him daily massages for one week. (Repeated palpation failed to show any involvement of the gland.)

He returned to me and the x-ray examination showed a large calculus with pyonephrosis of the left kidney and further study was advised. The gonorrheal discharge still persisted as before since it is quite obvious that neither sulfanilamide nor any other drug would substitute for nephrolithotomy or nephrectomy.

When the patient consents to proper attention it will no doubt be followed by prompt improvement in the lower urinary tract.

This case illustrates the need to obtain all the information available that justice may be done the patient in treatment. No drug, no matter how valuable, can take the place of careful, conscientious and complete examinations.

Peptic Ulcer

Thermal Effects*

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■ NUMEROUS INVESTIGATORS HAVE NOTED the marked seasonal exacerbations of symptoms in patients with peptic ulcer. Other than the casual clinical reference to this periodicity, no explanation has been forthcoming

We have questioned all our ulcer patients, and many others seen in consultation, as to what factor seemed to initiate or cause an exacerbation of their symptoms for the past eight years. We learned that in nearly all of them there was evidence of surface chilling in some manner: sudden climatic changes to severe cold or damp weather; the removal of winter clothing in early spring; bathing in cold water or cold showers; large amounts of cold beverages; living or working in air conditioned (cooled) offices or homes.

We have also noted repeatedly that the majority of all peptic ulcer patients usually have a subnormal temperature 97.6° to 98.2° during the day. A few active ulcer patients, or those with complications, may have a rise in temperature.

Clinical Study

Because of the paucity of observations in regard to etiologic seasonal activation, we attempted to study the effect of thermal changes on gastric secretion and clinical effects produced in the normal individual, as well as in patients, in various stages of treatment for their peptic ulcer. Through the courtesy of Dr. Hugo A. Freund, Chief of the Medical Department, all individuals in this study were taken at random from the medical wards of Harper Hospital. They included persons with acute and chronic ulcers, who were in various forms of treatment. All had demonstrable x-ray evidence of ulceration.

All individuals were subjected to the following routine examinations of gastric fluid. All subjects were first given the standard Ewald test meal. The various types of test meals were not used as we were interested in gastric juice rather than gastric content. Following this, the subjects' stomachs were aspirated daily after fourteen to sixteen hours of fasting. This was done in order to obtain a general basal average of gastric acidity, as well as eliminate (as much as possible) the psychic effects of passing the small rubber catheter into the stomach. All patients were exposed to changes in the room temperature as well as body surface. Chilling was done first by lowering the room temperature, and then the application of ice packs to the abdomen, extremities and head. This was continued until the patient complained of being cold and exhibited clinical signs of shivering. The fasting stomach was aspirated at intervals of ten minutes for the first half hour, and then every fifteen minutes for the next hour. On subsequent days, the same patients were exposed to increase in temperature by the elevation of room temperature and application of heat lamps to the trunk and extremities, until the skin showed evidence of generalized sweating. Gastric juice was aspirated as above.

Table I shows the gastric secretion response to the thermal changes. **In general, the degree of total acidity as well as the degree of free HCl increased when the body surface was chilled. In most cases there was a definite increase in the volume of gastric juice after the exposure to cold in contrast to the heat experiment, in which a decrease in total volume was invariably observed.**

The most dramatic response in these experiments was that practically all the peptic ulcer subjects complained of the sudden onset of pain and epigastric distress after exposure to chilling. In two cases codeine had to be used to control the pain. In approximately fifty per cent of the cases exacerbation of the ulcer syndrome occurred and continued for several days afterward, even though the routine Sippy regime

*This study was carried on through the coöperation of the Medical and Surgical Departments of Harper Hospital.

TABLE I

No. of Cases	Diagnosis of Cases	Time in Minutes	Titration*					
			Room Temperature		After Sweating		After Chilling	
			Free	Total	Free	Total	Free	Total
7	NORMAL CONTROLS	Fasting	8	22	12	20	10	24
		15	26	36	28	38	40	48
		30	32	42	40	52	46	56
4	CHOLECYSTITIS AND CHOLELITHIASIS	Fasting	14	24	20	32	18	30
		15	25	39	30	44	38	52
		30	32	42	36	48	50	64
1	SCLERODERMA	Fasting	0	6	0	6	0	8
		15	0	10	0	6	2	22
		30	0	8	0	10	2	12
9	GASTRIC ULCER	Fasting	18	32	25	41	20	28
		15	32	48	54	72	80	96
		30	54	62	58	70	92	102
7	DUODENAL ULCER	Fasting	10	24	24	42	14	25
		15	32	42	54	76	74	86
		30	40	50	58	92	78	90

*All gastric secretion titrated with 0.1 NHCl per 100 c.c. of gastric juice.

continued. However, when the patients were subjected to heat, their epigastric distress seemed to be alleviated. Most of the patients asked to have the heat lamps applied continuously because they stated it made them more comfortable. It was noted that the patients varied in their response to changes in temperature levels. In some, 10 to 20 degrees, Fahrenheit, produced striking gastric responses; in others a greater degree of chilling was necessary. Perhaps these can be explained on individual variations in body heat adjustment to heat and cold.

Changes in Treatment

Because of observations of others and these clinical investigations, we began to revise our treatment of the ulcer patient in 1930, and gradually have modified the usual Sippy regime. The first item was to insist that the susceptible patient kept himself warm 24 hours a day, to wear preferably woolen or heavy long underwear from early fall to early summer. Second, "food or fluid not too warm and not too cold." Sippy diet with fluids at room temperature, at frequent intervals. Third, nerve sedative, bromide or barbital with atropine if necessary. Fourth, heat to abdomen (electric heating pad or electric light tent when in bed) if distressed at all, and sufficient heat to produce sweating on the abdomen. Fifth, it must be obvious that if the patient is in bed and sweating he must necessarily take more fluid to maintain his body fluid-level. Sixth, neutralization of hyperacidity (at present using colloidal aluminum hydroxide as described by Waldman). Seventh, adjustment of daily routine of living to minimize the mental and physical stresses and strains.

The hemorrhagic ulcer patient is given one or more blood transfusions if necessary in addition to the above routine. Patients with severe hemorrhages, some penetrating, and all perforating types of ulcer are definitely surgical and should be treated accordingly. Most clinicians hospitalize or at least put their more severe or intractable ulcer patients in bed, and a large percentage improve under that regime. Why? One important factor, we believe, is the uniform skin surface temperature maintained by the body through adequate covering.

During the past few years eighty-two cases have been treated by the previously mentioned regime as follows:

Acute ulcers	11
Recurrent ulcers	40
Edema and obstruction	2
Gastric-jejunal ulcers	3
Gastro-duodenal ulcer	1
Acute perforation of gastric ulcer	18
Bleeding ulcers	5

(One patient died with delirium tremens.)
(One died after eighteen hours of generalized peritonitis.)

This group has been very well controlled with few or no exacerbations of the clinical symptoms, except when patients have not followed their treatment. One bleeding ulcer case which failed

to respond to treatment subsequently proved to be carcinoma of the stomach at operation.

Summary

These clinical and experimental observations indicate that the effects of chilling seem to disturb the normal physiology of the stomach and impair the nutrition of the gastric and duodenal mucosa. Some investigators have attributed these changes to the production of a histamine-like substance (acetycholine) which causes a diminution of the blood flow in the end arteries of the stomach, with a resultant anoxemia of the adjacent tissues. Others believe the mechanism to be a reflex stimulation (sympathetic and parasympathetic) acting through the vagus. Regardless of the mechanism a resultant increased acidity of the gastric juice was the constant finding in a large percentage of the patients exposed to cold.

The protection of body surface from sudden thermal changes by warm clothing, bed rest, and constant application of heat, as an electric pad or tent sufficient to produce sweating of the skin, has alleviated their symptoms in most instances. This routine has greatly decreased the striking seasonal "flare-ups" previously observed in these patients. We do not believe that the effect of cold is the cause of ulcer, but we do believe that sudden lowering of body temperature in the poorly insulated individual does aid in precipitating the ulcer syndrome (initially or as a recurrence) by disturbing the normal neutralizing mechanism of gastric and duodenal secretion.

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Coccogenous Sycosis*

Treatment

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■ Sutton[31] defines sycosis vulgaris as "a chronic folliculitis or perifolliculitis of the bearded regions, due to infection with certain strains of the yellow or white staphylococcus." Unna[32] states that "in another series of cases it appears in connection with seborrheic eczema of the face."

Although many cases of coccogenous sycosis respond well to various types of treatment, there are some which are very stubborn, and recurrences are frequent and troublesome. If the upper lip is involved, we think of nasal infection as a causative factor, although this does not always seem to be the key to the situation. Faulty shaving technic appears to be a very potent factor in prolonging the course of sycosis, and the practice of excoriating and digging for ingrowing hairs is another. The collar may rub and aggravate the condition. Neglected seborrhea may render the sycosis more persistent.[3,17,19,26,27,33]

Epilation by means of roentgen or Grenz rays

*Read before the seventy-second annual meeting of the Michigan State Medical Society, Grand Rapids, September, 1937.

has been warmly recommended,[10,11,12,22,35] but many of us have seen cases presenting an old radiodermatitis together with a persistent sycosis. Therefore its use for this purpose does not appear to be advisable. There have been many favorable reports concerning the use of autogenous or stock vaccines, especially the former;[2,4,19,20] but a long course of injections is required and the results are uncertain. Crutchfield was optimistic concerning the results he obtained with bacteriophage.[9] Cipollaro also observed improvement following its use, but not complete cure.[7] It is recommended as a supplement to other therapeutic procedures. Ingram, Prosser White and Michelson[16,21,34] obtained good results with a lotion containing sulphurated potassium, zinc sulphate, phenol and salicylic acid, but I have found no subsequent reports. There were several favorable reports concerning the use of brilliant green[6,23,24,28] in Europe and in New York, but there have been some recurrences. The same may be said of quinolor (chlorhydroxyquinoline), which produces excellent results in some cases but may prove too irritaitng for continued use in others. Some recurrences have resisted further attempts at treatment.[25,29,30-36]

Realizing the shortcomings of these and other types of treatment, I have decided to recommend an old-fashioned keratolytic and antiseptic ointment which I have used with success during the past fifteen years. Recurrences have not been frequent, and they have been mild and easily controlled. I feel that the effectiveness of the treatment depends largely upon the patient's coöperation. In order to secure intelligent coöperation, it seems essential that the patient be given complete and accurate written directions.

Routine of Treatment

1. Always shampoo daily with a good tar soap, rinse thoroughly with running water and dry well. This daily shampoo should be continued after the cure in order to help prevent recurrences.

2. Every morning, wash the face and neck thoroughly with lukewarm water and a mild soap (e.g., plain castile soap); rinse well with soapless water and *pat* dry. Then touch the razor blade and the entire bearded region with cotton soaked with the liquid antiseptic. Then lather the beard thoroughly with shaving soap. (The so-called brushless shaving preparations should not be used.) Take three minutes for lathering. The lather need not be rubbed in. Then shave once over, not too closely, with a *sharp* blade. Shave the affected areas last, to avoid spreading the infection. If shaving is too difficult in inflamed areas, small curved scissors may be used as a temporary substitute (seldom necessary). After shaving, rinse the face and the razor blade thoroughly with running water, pat dry, and then touch the face and blade again with the liquid antiseptic. Then apply the ointment to the entire bearded region, using small amounts and rubbing it in gently but quite well with the fingertips directly. Finally, wipe off with cotton any ointment which may remain on the surface, and dust a very little plain talcum sparingly over the entire face, so that finally no ointment or talcum shall be visible on the skin. In using a towel, the affected areas are to be touched last, and then the towel is to be boiled for at least two minutes by the clock. Washcloths are not to be used.

3. Before the evening meal and at bedtime, the face is to be washed thoroughly with mild soap, rinsed with fresh water and patted dry (the affected parts last). Then the liquid antiseptic is to be applied to the entire bearded region, followed by the ointment and talcum, as directed above.

4. If the face is washed at any other time, the liquid antiseptic, ointment and talcum must always be used afterwards.

5. The hands must be kept off the face, and hairs are not to be plucked out. "Ingrowing hairs" are to be left untouched.

6. Soft, low collars are to be worn, in order to prevent aggravation of the condition by constant rubbing.

In addition to this procedure, steps should be taken to improve the patient's general health, and if there is any infection of the nose or throat it should be attended to.[5,13]

The daily shampoo seems important because, as already mentioned, there appears to be a seborrheic background at least in certain cases of sycosis. If the seborrhea is prominent, suitable scalp lotions may also be required.

Looking through the dermatological textbooks in my library, I find that at least as early as 1874

daily shaving was advised by Hebra and Kaposi as an important part of the treatment for sycosis.[8,14,15,16] They advised that it be continued after the completion of the cure, in order to prevent recurrences. Nearly all of the books give about the same advice, but the technic of shaving is not sufficiently described. In my written directions to the patient I have outlined a technic approximating surgical cleanliness and designed to prevent the spread of the follicular infection to new areas while making the affected parts more accessible for treatment.

It is possible that an electric razor, if properly sterilized, could be used to advantage, but thus far I have not tried it and have found no reports concerning it.

Medication

A liquid antiseptic has always been included, chiefly as a means of sterilizing the face and blade before and after shaving, to help prevent the infection from spreading to other follicles. This liquid is also regularly employed before each application of the ointment, both being applied always to the entire bearded region, and not just to the affected parts. I feel that it does not matter which liquid antiseptic is used, provided that it is a reliable antiseptic and not irritating. For practical purposes, I do not favor the use of staining antiseptics on the face, and have never found them necessary. There are enough stainless preparations, and I have often employed two or three different ones in rotation. Ordinary rubbing alcohol (alcohol 70 per cent) is one of my favorites, and I have also used a saturated solution of boric acid in alcohol.

If a severe inflammatory process is present, moist compresses of saturated boric acid solution may have to be used for a short time, until the acute symptoms have subsided; then an ointment may be started with caution. But as a rule the ointment may be employed from the start.

The ointment consists of ammoniated mercury and salicylic acid in a base of benzoinated lard. I find that Hebra and Kaposi[1,14] recommended ammoniated mercury in their textbook as an antiseptic for use in sycosis, and so have the authors of most dermatological books since that time. In his article on the therapeutic value of salicylic acid, McMurtry[18] states that in the strength of 3 per cent or more it is keratolytic, while in lower percentages it is keratoplastic. According to McMurtry it is useful to help remove adherent scales, crusts and debris. He mentions its usefulness in sycosis, among many other conditions, and states that it also possesses some value as an antiseptic. At first the percentage of ammoniated mercury should be rather low, usually 4 or 5 per cent, and that of the salicylic acid should be 2 or 2.5. The strength of the ammoniated mercury is gradually increased, up to 8, or occasionally even 10 or 12 per cent, while the salicylic acid is increased to 3 and then to 4 per cent, but seldom higher. I have always preferred benzoinated lard as a penetrating base, and such a base is needed to carry the active ingredients into the follicle where they are needed to effect a cure. During the summer, such an ointment should be kept in a refrigerator to prevent melting. Menthol, 0.2 per cent, may be added to this ointment, if desired, to relieve painful or burning sensations. As stronger and stronger ointments are prescribed, it may be well to have the patient alternate them with the milder ones until the milder ointments are used up, thus avoiding waste. And if a stronger ointment seems to irritate, a milder one must be substituted, at least temporarily, until the skin is soothed. One might even have to revert to plain boric acid ointment occasionally as a soothing agent. Of course, the talcum has a soothing effect, but it is used chiefly to remove any greasiness and to make the skin as presentable as possible.

The face is a very prominent part of the body, and no patient wants to go around with his face stained by a liquid antiseptic, or smeared with an ointment or paste or coated noticeably with powder. By using stainless antiseptic, a clean ointment, rubbed in and wiped dry, and very small amounts of talcum, the patient has been kept as presentable as possible and in this way his coöperation has been secured, which is of the utmost importance.

After-Treatment

How soon may a cure be expected? In my experience, from four to twelve weeks of this treatment have usually been required to effect a clinical cure. But it seems unwise to stop treatment at this point. Instead it should be continued regularly for at least another month, and following this it should be used after shaving for two or three more months, to prevent pos-

sible recurrences. Afterward, the same care should always be used in shaving, and the regular use of rubbing alcohol is a wise precaution. Daily shampooing should never be discontinued, for it checks seborrhea of the scalp and bearded regions, and may thus help to prevent recurrences. In an occasional case with a persistent tendency to recur, the ointment may have to be applied daily as a preventive measure. During the past fifteen years, I have probably seen my share of patients with sycosis, including some stubborn cases, but the results following this treatment have been so satisfactory that I have not had to resort to other measures.

It cannot be overemphasized that completely written directions and constant supervision are absolutely indispensable. Nearly every patient with stubborn sycosis may be relied upon to follow these directions to the letter.

Summary

The various modern methods of treating sycosis have been reviewed briefly and their shortcomings mentioned. A plan for cleanly treatment, which the author has used successfully for 15 years, is described. It calls for daily shaving with scrupulous technic, and applications of liquid antiseptics and an ointment of ammoniated mercury and salicylic acid, in increasing strength, in a benzoinated lard base. A cure has usually been effected in four to twelve weeks. Complete written instructions to the patient are essential.

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Bladder Diseases

Treatment in Women*

By Wm. J. Butler, M.D., F.A.C.S.
Grand Rapids, Michigan

William J. Butler, M.D.
Rush Medical College, M.D., 1917. Fellow, American Medical Association. Member American Urological Society.

■ Intelligent treatment requires careful diagnostic study to establish the particular etiological factor in each case of frequency of urination and dysuria in women. A complete examination of the catheterized urine, including the wet sediment and stained sediment, will separate these women into two general groups; those with a normal urine (Group I) and those with pyuria or bacteruria or both (Group II). The diagnostic procedures and therapy are entirely different for each group. These women formerly gave me no end of worry in my attempts to relieve them but I no longer hate to see them enter the office. The proper study and treatment reduces the so-called bladder neuroses practically to the vanishing point.

Group I are studied for such factors as chronic urethritis with habit bladder, chronic interstitial cystitis or Hunner ulcer, chronic trigonitis and cysts of the bladder neck, stricture of the urethra, cystocele and urethrocele, caruncle, etc. The investigation consists of (1) inspection and stripping of the urethra including a stain of any urethral secretion obtained, (2) catheterization to obtain a clean specimen of bladder urine, (3) determination of bladder capacity, (4) calibration of the urethra using olivary bougies, (5) cystoscopy and urethroscopy, (6) determination of residual urine and (7) the use of x-ray studies (cystograms and urethrograms) in certain cases. It is practically useless in my experience to treat this group with oral medicinal therapy though this is commonly done. The women of this group are frequently told that there is nothing wrong with them because of the negative urinary findings and are classified as neurotics.

*Read before the seventy-second annual meeting of the Michigan State Medical Society, Grand Rapids, September 28, 1937.

Group I—Negative Urine

The procedure in this group has been previously outlined. The essentials of the preliminary study are careful examination of the catheterized urine, calibration of the urethra, and determination of the bladder capacity. In the presence of cystocele a check for residual urine is carried out at once. It has been my experience that caruncles only occasionally give rise to symptoms and hence they are disregarded unless all other findings are negative. Since the majority of these frequencies are due to chronic urethritis and habit bladder, cystoscopy may be omitted at first and urethral and bladder dilatation instituted for a trial period. If improvement does not occur after a few treatments, bladder observation should be carried out. This will often reveal a Hunner ulcer although many of these cases also improve on this régime.

In recent years particular attention has been given to bladder capacity which has been found to vary from two to ten ounces when the patient first comes under observation. After treatment it will vary from twelve to twenty-four ounces. Habit bladder seems to be a very common occurrence in the female due to factors such as chronic urethritis. Further, it almost invariably yields to removal of the etiological factor plus hydrostatic dilatation of the bladder. The latter has been particularly stressed with excellent results.

Chronic Urethritis

Many have written on this topic in the past but until the recent emphasis by Folsom, dating back about six years, the urologists in general paid scant attention to it. The female urethra is exposed to contamination with vaginal bacteria, is subject to trauma because of its location, and is often infected by the gonococcus. These factors account for the frequency of chronic non-specific urethritis in the female. The frequency of urination due to the urethral irritation naturally occasions reduced bladder capacity, which I usually term habit bladder. The diagnosis is established by cystoscopy and urethroscopy. One commonly finds cysts and polypoid masses at the bladder neck and a granular condition of the urethra. The condition may be almost assumed to be present in the absence of other factors.

In my hands excellent results have been ob-

tained by dilatation of the urethra up to about No. 32 F, although some advocate going as high as No. 38 F. Better results have been obtained since concomitant treatment of the associated habit bladder has been carried out. The bladder is filled hydrostatically three times at each visit with usually an increase in capacity each time. The procedure becomes a game with the patient and her coöperation is invariably obtained By forcing fluids at times and retaining the urine as long as possible the patient often hurries the improvement. The application of strong silver nitrate solutions to the urethra has long been recommended but seems to me to be a dubious procedure. It usually causes severe and prolonged pain, yields but few dividends, and often reduces one's practice suddenly.

Too commonly frequency and dysuria are attributed to pathology of the female pelvis without adequate urethral and bladder investigation. The sequel is failure of the pelvic surgery to cure the bladder trouble.

The importance of the usual foci is stressed by many but certainly the cervix should be examined very carefully since there is a probability of a direct lymphatic connection. In the event of failure of therapy, further study is indicated. This entails reëxamination for the presence of Hunner ulcer and the making of cystograms and urethrograms. Occasionally the fulguration of the cystic masses at the bladder neck is necessary.

Hunner Ulcer*

This must be a fairly common lesion in women if I may judge by the number of cases occurring in my practice. At this time eight cases are actively under observation intermittently. One must constantly bear it in mind so as to not overlook it. The symptoms are similar to those of the other conditions in this group except that suprapubic pain is frequently present. The diagnosis is not easy. In fact one of the synonyms is elusive ulcer. A better term is chronic intersititial cystitis since the actual ulcer in the mucosa is usually tiny and difficult to locate. It is often necessary to use gas anesthesia and overdilate the bladder before the reddish areas or linear streaks are observed with the tiny droplets of blood literally sweating from their surface.

The accepted treatment is over-distention under anesthesia and extensive and thorough fulguration of the involved areas. It is ordinarily effective. In spite of good opinion to the contrary I have had many good results in the milder cases by using weekly dilatations without anesthesia.

Two cases have been observed for twelve years with complete and permanent healing on this type of management. Removal of all foci of infection is fundamental. I have one horrible example of an intractable recurrence in a woman who at her own insistence had the tonsillar infection sealed in with diathermy.

Mention should be made of the recent observation of Fister, who, recognizing a similarity to lupus erythematosus, achieved a spectacular result in one case by the use of intramuscular bismuth and intravenous gold sodium thiosulphate.

Stricture of the Urethra

Stricture in the female is much more common than is ordinarily supposed. It seems to occur at all ages and probably is due to gonorrhea and trauma. Strictures of the meatus are usually congenital. Like Hunner ulcer, they are easily missed unless one keeps the possibility in mind. The symptoms are similar to those of the previously mentioned conditions except that a history of straining to void is often obtained. One of my patients has had an acute retention three times. On the last occasion she came to the office with a greatly distended bladder. A trained nurse had attempted unsuccessfully to pass a soft rubber catheter, and it was necessary to use a filiform to get through the stricture. Then it was possible to screw on a Phillips catheter and relieve her. Dilatations are always slow and difficult. The ordinary Hank's cervical dilators make excellent female sounds. The optimum interval is about one week. Constant dilatations at suitable intervals are necessary just as in the male, according to the dictum once a stricture always a stricture. However, just as in the male, a few crises are required to persuade the patient of this fact. After full dilatation is achieved the interval is doubled until the maximum interval possible without contraction is determined. Ideally, the patient should report at this interval indefinitely. Considerable futile conversation has been wasted on such people but at least one has an alibi when they return, which they always do. Furthermore, when they do return, a series

*During the past eighteen months my treament for Hunner ulcer has been that suggested by Howze; namely the use of Ag NO_3 and nupercaine.

of dilatations is necessary which would be obviated by periodic visits. Eventually they see the light.

It has seemed to me that some of these women possibly suffer from a spasmodic stricture. This idea first occurred to me after seeing a school teacher of 22 who commonly developed her severe frequency in the late afternoon when she was thoroughly fatigued. When first seen, attacks of frequency had been going on for six months. Some relief was obtained after simple catheterization and definite relief after cystoscopy using a No. 24 cystoscope. This is a reminder that years ago we would occasionally see a patient relieved after cystoscopy without realizing just how it occurred. The bladder and urethra were negative and the bladder capacity was ten ounces. The urethra was dilated at weekly intervals to No. 32F with complete relief. The bladder capacity increased to twenty ounces. She has had no trouble for the past eighteen months but has ceased teaching school and has been careful about overfatigue. I have a nurse under treatment at present who presents a similar problem. She invariably develops frequency when the office work is heavy and she becomes nervous and fatigued. It appears to me that these women have a urethral spasm much as one might have a pylorospasm or tighten up during a golf game. Both of these women are of the so-called neurotic type who put everything they have in intensity into their work.

Cystocele

The presence of cystocele does not necessarily account for frequency and nocturia. It may be responsible at times but probably in a very small minority of all cases. I feel rather strongly on this point since seeing an aunt of mine who still had bladder trouble after a satisfactory anterior wall repair. She told me her story while visiting in my home and I had the dubious privilege of cystoscoping her and finding a Hunner ulcer. The bladder capacity was only five ounces. Proper treatment had been delayed about a year. The converse is equally true as illustrated by a patient who, after fulguration of a Hunner ulcer and cysts of the bladder neck, required an anterior wall repair because of a three-ounce residual. Residual urine should be determined before and after repair just as in the prostatic. Miller makes five films of the bladder and two of the urethra before and after repair and has been able to study and improve the functional and anatomical results by means of this method. Closer coöperation between the gynecologist and the urologist seems desirable in the management of this problem since we are only separated here by a thin layer of fascia.

Summary

The treatment of the common bladder and urethral diseases in the female has been outlined. The uncommon causes of frequency and dysuria observed include three cases of bladder calculus, two cases of carcinoma of the urethra, four cases of ureterocele, four cases of diverticulum of the bladder and numerous cases of carcinoma of the bladder. These cases have been divided into two general groups: (1) those with negative urines, and (2) those with pyuria or bacteruria or both. In Group I the treatment of chronic urethritis, habit bladder, Hunner ulcer, stricture of the urethra and cystocele is discussed. Emphasis is placed on the fact that because of the negative urine these patients often receive no treatment or are told that they have a bladder neurosis.

Group II—Bladder Infections

It should always be remembered that bladder infections are usually secondary to renal infection. They should be divided into bacillary, coccal and amicrobic pyurias, by means of the stained sediment on a catheterized specimen. The latter are suggestive of tuberculosis, especially in younger women, but if this is ruled out they can be successfully treated by the excretory antiseptics available today. A few cases of bacilluria alone are seen each year, the diagnosis having been missed because the wet sediment showed no pus. During the acute phase local treatment often increases the distress. Therefore rest, hot sitz baths and opium suppositories plus oral medication are used. Formerly it was believed that it was necessary to alkalinize the urine in the interest of the patient's comfort. This notion seems to be fallacious since I have found that they are just as comfortable on the acid side and besides more is being done to control the infection. These patients should not be discharged on the basis of symptomatic relief but solely on the basis of laboratory findings.

The treatment of these infections has been

revolutionized in the past six years by the introduction of hydrogen ion control, the ketogenic diet, mandelic acid, and recently sulfanilamide. In older women with damaged kidneys and general intolerance to medication the simplest treatment to use is ninety to one hundred twenty grains of enteric-coated ammonium chloride tablets daily. This should produce a fairly constant pH of 5.4 or lower. The patient is instructed to avoid citrus fruits, sodium bicarbonate, milk of magnesia and other alkalinizing items. The pH should be checked by the patient at least twice daily. It seems to be easier to teach them to use nitrazine paper than any of the other indicators available. If the proper acidity is not achieved in forty-eight hours the usual answer is that the tablet coating is not being dissolved and the tablets are passing through intact. They are frequently observed in x-ray films. A shift to a liquid preparation of the same drug will usually give the desired acidity.

In younger women ammonium chloride is given for two days and then ammonium mandelate is started and continued for two weeks. The ammonium chloride may be given concomitantly and the pH must be checked twice daily. The ammonium mandelate may be given in an elixir using two drams four times a day for a total of 180 grains. More recently it is available in tablet form but the ingestion of 24 to 36 tablets daily looks like a large order to the average patient. Frequently casts appear in the urine but disappear promptly after cessation of the medication. The sediment should be checked every few days. If sterilization occurs the urine should be checked again in two weeks and monthly thereafter for a time. Minor recurrences will thus be detected early and are much more easily dealt with than the original infection. If one wishes to culture the urine as a check on cure it can be done simply by allowing the catheterized urine to stand 24 to 48 hours at room temperature as suggested by Herrold. After two weeks of mandelic therapy the ammonium chloride may be continued for two or three weeks. Unsuccessful cases should have a vacation of at least two weeks before having another course of mandelic acid. In the interval, fluids may be pushed.

Within the past several months sulfanilamide has assumed an important rôle in the treatment of these infections. Due to the fact that no renal irritation is produced it will probably achieve a greater field of applicability than mandelic acid. It must be used cautiously for the moment because of the other toxic reactions that have been described. However, careful control of the dosage almost always obviates these difficulties. One of its outstanding advantages is that it is most effective in an alkaline urine. Buchtel and Cook, Herrold, and Helmholz have recently published articles on its use. Helmholz states that it is effective against staphylococcus aureus, escherichia coli, aërobacter aërogenes and organisms of the proteus and pseudomonas groups but not against streptococcus fecalis. At the suggestion of Herrold I have been using the drug for over a period of five months and the results have been very encouraging.

My respect for this drug was greatly increased by the result in a stubborn infection which first came under my observation, February, 1936:

The patient, aged twenty-four, was seen because of frequency, nocturia, dysuria, hematuria, and fever. The urine showed pus IV and colon bacilli. The pyelitis was so severe that she was in the hospital for four weeks. The treatment consisted of rest, ammonium chloride and salihexin intravenously. The excretory pyelograms were negative. One negative specimen was obtained after she left the hospital but within two weeks the urine was again loaded with colon bacilli. On June 22, 1936, she was placed upon the ketogenic diet for two weeks and this therapy yielded two negative specimens. However, within a week the colon bacilli returned as before. During the fall of 1936 three pelvic lavages were given with excellent temporary results. The next recurrence was treated with ammonium mandelate since this was now available. Several negative specimens were obtained but three weeks later another acute attack of pyelitis sent her to the hospital for another four weeks. This happened during my absence from the city and she was treated by an internist for two months who used mandelic acid again and later a bacterial filtrate. However, when she came under my care again the urine still showed large numbers of colon bacilli. About this time I began the use of sulfanilamide and she was given thirty grains daily for two weeks. The urine became sterile and has remained so for four months. This was of more than ordinary importance to her since she had married just prior to the initial attack and was desirous of having children. It was only after the use of sulfanilamide that it was possible to permit her to go ahead with this adventure. She is still reporting monthly because of this phase of the situation. Except for the bladder symptoms at the onset and the two febrile periods this patient had no symptoms. Treatment was continued solely

on the basis of the laboratory findings and this should be the invariable rule.

Too much emphasis cannot be placed upon the fact that these patients should not be treated indefinitely without the use of intravenous or retrograde pyelography. Persistence of the infection beyond four to six weeks necessitates study for obstructive and surgical factors.

Why the National Physicians Committee?

Being under indictment it was very difficult for the American Medical Association to protect itself against a barrage of propaganda. As a consequence, independent physicians in most large centers throughout the United States took it upon themselves to arouse the public to the menace of medical regimentation.

The issue was clarified and public opinion so congealed by May 17, 1939, that the House of Delegates assembled in St. Louis passed a resolution, a part of which reads as follows: "The American Medical Association would fail in its public trust if it neglected to express itself unmistakably and emphatically regarding any threat to the national health and well-being. It must therefore, speaking with professional confidence, oppose the National Health Bill."

Subsequent hearings before the Sub-Committee of Education and Labor of the Senate gave evidence of such an aroused public opinion that made wholly impracticable the passage of the Wagner National Health Bill in the last Congress.

However, it is generally understood that there has been no final disposition of this case. The adverse propaganda is widespread, possibly even more subtle, and constantly tending to break down the confidence of the public in organized medicine and the practicing physician. All of this is paving the way for drastic if not revolutionary changes in our system of medical service and the pattern of the independent practice of medicine. The story carried in the March 9 issue of *Liberty Magazine* is a case in point. The glaring headlines in newspapers which heralded the decision of the Court of Appeals in Washington on March 4 is another instance.

Especial attention should be given to the outright misrepresentations in the headlines and text of the news item from the *New York Times.*

Ultimately this problem will be settled. Unless somebody does something about it, it will be settled certainly to the detriment of the physicians and to the very great detriment of the public. The National Physicians' Committee was brought into being for the express purpose, first—of counteracting this systematic and sinister propaganda on the one hand and, to the extent possible under existing circumstances, make every effort to provide the most widespread distribution of the most effective medicine that can be provided.

Hyperthyroidism

Diagnosis*

By George Crile, Jr., M.D.
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George Crile, Jr., M.D.

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Differential Diagnosis

■ Active hyperthyroidism in a young adult is perhaps the most readily recognized physiological disorder that we know. A glance at the patient cannot fail to suggest the true nature of the disease. On the other hand, in patients of advanced years with low-grade hyperthyroidism, in patients with goiters complicated by other medical problems, such as diabetes, tuberculosis, or organic heart disease, the diagnosis may tax all available clinical and laboratory facilities to the utmost.

Hyperthyroidism may be simulated by any infectious process, especially by the more chronic types of infection such as tuberculosis and undulant fever. There is a tendency to tachycardia and loss of weight. Nervousness and fatigue are often prominent symptoms. In borderline cases of suspected hyperthyroidism, all possibilities of chronic infection should be eliminated before treatment of the suspected hyperthyroidism is begun.

Essential Hypertension.—The most difficult condition to differentiate from hyperthyroidism is severe essential hypertension. Particularly when the disease has entered the malignant phase, a moderate elevation of the basal metabolic rate is a relatively common finding and, in a small percentage of the cases, marked elevations of the basal metabolic rate up to plus 50 per cent may be

*From a paper read at annual meeting of Michigan State Medical Society, Grand Rapids, September 21, 1939.

present in the complete absence of true hyperthyroidism.

I have seen a case of malignant hypertension in which the basal metabolic rate at bed rest in the hospital remained persistently in the neighborhood of plus 45 per cent. There was no clinical evidence of hyperthyroidism and the thyroid was not palpably enlarged. The chief complaints were referable to paroxysmal attacks of cardiac asthma but no dyspnea was present when the patient was at rest and the elevation of the basal metabolic rate could not be attributed to increased work by the muscles of respiration. In view of the striking and persistent elevation of the basal metabolic rate, a total ablation of the thyroid gland was performed in an attempt to decrease the work of the heart and restore its compensation. Every vestige of thyroid tissue was removed. Following operation the blood pressure remained unchanged but the symptoms improved. The basal metabolic rate fell to only plus 8 per cent instead of falling to the level of from minus 30 to minus 40 per cent as one would expect in the absence of all thyroid tissue. Some months later the patient died and the complete absence of the thyroid was confirmed at postmortem examination.

It is clear in this case that the patient's basal metabolic rate was elevated by the hypertension and that this elevation could be maintained at the level of plus 8 per cent even in the absence of all thyroid tissue.

Over a two-year period I studied the basal metabolic rates of a large number of patients with essential hypertension. Eighteen of these cases were found to have elevations of the basal metabolic rate of from plus 15 to plus 77 per cent, the average of this group being plus 33 per cent. The symptoms of these patients closely simulated those of hyperthyroidism.

An elevation of the basal metabolic rate, whether the result of hypertension or of thyroid overactivity, must of necessity increase the requirements of the body for food and oxygen. In these cases of hypertension with associated hypermetabolism, therefore, the appetite may be increased and tachycardia may be present. So closely may hypertension simulate hyperthyroidism that it is not surprising to find several patients in this series who had had thyroidectomies performed without relief of symptoms.

There are many cases of hypertension in which the basal metabolic rate is elevated, the history is consistent with hyperthyroidism, and the physical findings do not rule out its presence. In such cases a high or a normal blood cholesterol content is strong evidence against the presence of hyperthyroidism. In the final analysis, however, the clinical picture is the most valuable aid in determining whether a patient with hypertension has hyperthyroidism as well. It should always be remembered that thyroidectomy in the presence of hypertension will not lower the diastolic blood pressure even if true hyperthyroidism is present.

Cardiac Decompensation.—As I have already noted, the basal metabolic rate is frequently elevated in patients with dyspnea of cardiac origin. It is often difficult to determine, in these cases, whether or not the cardiac decompensation is the result of a "masked" hyperthyroidism. It is essential in these cases, unless diagnosis is perfectly clear, to recheck the basal metabolic rate after cardiac compensation has been restored by a period of rest in bed and digitalization. If the basal metabolic rate remains elevated in the absence of dyspnea while at rest, then hyperthyroidism presumably is present.

Neurocirculatory Asthenia.—Occasionally, symptoms of neurocirculatory asthenia simulate hyperthyroidism so closely that thyroidectomy is performed under the mistaken belief that hyperthyroidism is present. The symptoms of neurocirculatory asthenia are unchanged or aggravated by such surgery. Although nervousness, palpitation, tachycardia, and tremor are present in neurocirculatory asthenia, the physical findings and the basal metabolic rate should facilitate the differentiation of the two conditions.

Neurocirculatory asthenia is a functional disturbance characterized by its occurrence in an unstable type of personality, by the paroxysmal nature of the symptomatology, and by the complete absence of any consistent alterations in metabolism. The tachycardia of neurocirculatory asthenia tends to disappear with rest in bed. The pulse pressure as a rule is not increased, the systolic blood pressure is often low, and the

apex impulse of the heart is forceful only during the paroxysms of nervousness. The patient may enter the hospital with a forceful tachycardia of 120 beats per minute and the next morning the pulse rate will have fallen to 80.

The circulatory manifestations of hyperthyroidism are constant rather than paroxysmal. The heart is necessarily subjected to a constant stimulation as a result of the increased metabolic demands. Hence, at bed rest in the hospital, the pulse rate of the patient with hyperthyroidism will fall slowly in response to the slow decline of the basal metabolic rate. The pulse pressure is nearly always increased and the systolic blood pressure is almost invariably high rather than low normal.

The hands of the patient with neurocirculatory asthenia are almost invariably cold and moist in contrast to the warm flushed skin of the patient with hyperthyroidism. Tremor, if present in neurocirculatory asthenia, is apt to be coarser than that seen in hyperthyroidism. The appetite in neurocirculatory asthenia is as a rule either unchanged or diminished and significant loss of weight is absent unless the patient refuses to eat.

Psychoses.—Major organic psychoses can closely simulate hyperthyroidism. I have seen patients with involutional psychoses who have had a persistent forceful tachycardia, who have lost considerable weight, and whose facial expression has closely simulated that of hyperthyroidism. This stimulation of the circulatory system and of the mechanism of emotional expression arises, no doubt, from the disorientation of the mind, and from the inexpressible fear of some terrible fate evident to the patient alone. In these cases the basal metabolic rate is apt to be unreliable and the diagnosis must be determined largely by clinical means.

Patients who are disoriented or delirious and who are suspected of having hyperthyroidism should not be subjected to thyroidectomy until at least two weeks after mental clarity has returned. If the psychosis is due to hyperthyroidism, the patient will be apt to have a severe or even fatal postoperative thyroid crisis. If the psychosis is not due to hyperthyroidism, operation will not help it. Patients in psychosis, therefore, are best treated by conservative measures.

Laboratory Aids to Diagnosis

Iodine Test.—One of the most valuable methods of determining the presence of hyperthyroidism in any of the above conditions is the therapeutic test with iodine. If hyperthyroidism is suspected the patient should be hospitalized and kept at rest in bed for a period of three days, the basal metabolic rate being determined each day, and then discharged. Fifteen minims of Lugol's solution three times daily are given for a period of two weeks, after which the patient is again admitted for a three-day period and the basal metabolic rate again determined daily. The pulse rates and blood pressure readings of the two periods of hospitalization are compared, as are the weights and evaluation of the severity of the symptoms. If the basal metabolic rate has fallen, if the pulse rate is consistently lower, and if there has been an appreciable gain in weight and remission of symptoms, thyroidectomy can be advised with every prospect of obtaining an excellent result. On the other hand, if there is no subjective or objective improvement after two weeks of iodine therapy in a patient who has previously taken no iodine, it is unlikely that thyroidectomy will be of any benefit.

If the patient has been taking iodine continuously over a long period of time and if it is suspected that the hyperthyroidism is in partial remission as a result of the iodine, the reverse of the above procedure can be used. The patient continues to take iodine during the initial hospital stay, and is then discharged without iodine for a period of from three to four weeks. An exacerbation of the symptoms and signs of hyperthyroidism confirms the presence of the disease.

Basal Metabolic Rate.—The basal metabolic rate is the most useful laboratory aid in the diagnosis of hyperthyroidism. Although there are quite a few cases in which basal metabolic rate is within the normal limits of from 0 to plus 15 per cent, I have never seen a patient with active hyperthyroidism, untreated by iodine or roentgen therapy, whose basal metabolic rate was consistently less than 0 per cent. It is not improbable that the occasional patient who has active hyperthyroidism and a high normal basal metabolic rate is an individual whose basal met-

abolic rate prior to the development of hyperthyroidism was below the ordinary figures quoted as normal.

An elevation of the basal metabolic rate does not necessarily imply that hyperthyroidism is present. Leukemia may cause a striking elevation of the basal metabolism, probably as a result of the enormous activity of the bone marrow. In certain cases of severe essential hypertension, the basal metabolic rate may be elevated to as high as plus 50 per cent. In the presence of dyspnea secondary to cardiac decompensation, the increased work performed by the muscles of respiration results in an elevation of the basal metabolic rate.

Cholesterol.—The blood cholesterol has been found to be quite consistently low in patients with hyperthyroidism.[1] A low blood cholesterol *per se* is of little or no clinical significance because a number of conditions other than hyperthyroidism can influence its level, but the finding of a fasting high blood cholesterol in a patient suspected of having hyperthyroidism is strong evidence against the presence of hyperthyroidism. A low blood cholesterol is thus of little positive value in proving the presence of hyperthyroidism but the finding of a high blood cholesterol is of considerable negative value in ruling out hyperthyroidism in borderline cases.

Considerable experimental and clinical investigation of the blood iodine levels in patients with hyperthyroidism has been carried out,[2] but the findings are too irregular and inconsistent to be of clinical value.

Summary

1. Severe essential hypertension, major psychoses, neurocirculatory asthenia, and cardiac decompensation may simulate hyperthyroidism.

2. The diagnostic value of the basal metabolic rate, or the blood cholesterol level, and of the therapeutic test with iodine are discussed.

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Clinical Pathological Conference

Staff Conference
Department of Internal Medicine

University Hospital, Ann Arbor
Service of Cyrus C. Sturgis, M.D.

H. B., No. 443461, aged forty-eight, white, divorced, a laborer, was admitted May 5, 1939.

History.—The patient has been constipated for years and has required frequent laxatives. He believes that he has passed tarry stools on occasions and that he passed a tapeworm five years ago. He frequently has abdominal distention but no pain following food ingestion. This is usually relieved by soda.

In September, 1938, he noticed the onset of numbness, coldness and tingling sensations in the soles of both feet. This gradually spread up to the hip regions and was associated with ataxia which was so marked that the patient was suspected of being drunk on several occasions. Gradually weakness of the back appeared, and he began to have difficulty sitting up. Paresthesias of the hands appeared two months before admission. He eats fish only on rare occasions and denies eating raw fish. He was treated during September, 1938, for recurrent gonorrhea with sulfanilamide. Past history and family history are non-contributory.

Physical Examination.—Blood pressure 120/90. The patient was a well developed, well nourished white male. There was no pallor or icterus. The tongue appeared normal. Examination of the heart and lungs revealed no abnormalities. The spleen and liver were not palpable. Vibratory sense was diminished in the lower extremities and wrists; sense of position and motion was impaired. The gait was spastic-ataxic and the Romberg sign was positive. Tendon reflexes were hyperactive but equal bilaterally. Abdominal reflexes were absent. There were positive Babinski and Chaddock reflexes.

Laboratory Data.—Blood Kahn test for syphilis was negative. Urine showed a trace of albumin and 10 to 15 white blood cells per high power field. Blood examination showed hemoglobin, 85 per cent; red blood cell count, 4,100,000 per cu. mm.; white blood cell count 5,600 per cu. mm. with 44 per cent polymorphonuclear neutrophils, 1 per cent basophils, 10 per cent eosinophils, 23 per cent lymphocytes, and 22 per cent monocytes. The mean corpuscular volume was 104 cubic microns. Stool examination showed one plus guaiac reaction and Dibothryocephalus latus and Strongyloides ova present. Gastric analysis revealed no free hydrochloric acid after histamine in-

jection. Spinal fluid: Pressure, 140 mm. water; cells, 4 lymphocytes per cubic millimeter; carbolic reaction positive; Nonne-Apelt reaction positive; Gold sol, 1121000000; Globulin, 4+; Protein, 95 mg. per 100 c.c.; Kahn negative. Spine x-rays showed minimal hypertrophic arthritis.

Summary of Course in the Hospital.—The patient has been given 1.0 c.c. Lederle's liver extract intramuscularly, three times a week. This is his sixteenth day of treatment. He is also receiving daily physiotherapy. On this regimen the paresthesias are less bothersome and the paresis of the lower extremities has improved.

Discussion

Dr. Cyrus C. Sturgis.—We have one case for presentation. The patient is on the Neurology Service, and he is presented by Dr. Green.

Dr. Mervin E. Green.—We have the following additional laboratory information: The blood bilirubin on May 26, 1939, was 1 mg. per 1,000 c.c. Blood count on May 26, reported by Simpson Memorial Institute, was as follows: Red blood cells 4,180,000 per cu. mm., white blood cells 5,150 per cu. mm.; hemoglobin 88 per cent, 13.9 grams per 100 c.c. The bone marrow was normal as determined by sternal puncture.

Dr. Sturgis.—Dr. Goldhamer, would you like to discuss this case?

Dr. S. Milton Goldhamer.—This patient presents many interesting features of dibothryocephalus latus anemia but all of the characteristics which he shows responded to those attributed to an individual with pernicious anemia. There has been considerable difference in opinion as to whether or not the two diseases occur coincidentally—that is, pernicious anemia occurring with infestation or whether the anemia which is present is due solely to the intestinal worm. Several such cases have been reported. Very little actual experimental work has been done except in a few instances, where the investigators showed that there are two types of anemia which may occur as a result of the parasite. One is a hemolytic type of anemia which has never been seen clinically but has been produced experimentally in animals; and secondly, the macrocytic hyperchromic anemia. Clinically the disease has been known to occur practically all over the world. Those cases reported in this country have all been related to the fishing industry or to the migration of people from the Baltic area.

The best summary of this disease was written by Birkeland in 1932. In speaking of the biology of the worm, he states that there are several names given to it but the proper name is diphyllobothrium latum. It was first distinguished from tæniæ in 1603 by Glasser and, in 1819, Bremser gave the first accurate description of the disease. The anatomy of the organism was first described in 1872 by Sommer and Landois, who showed that the worm primarily attached itself to the intestinal mucosa by its head about midway in the ileum and that the organ itself showed that the younger part of the worm was nearest to the head and the older part of the worm was at the tail. The worms contain about 3,000 to 5,000 segments. The eggs are present about two weeks after the worm has become established in the intestine and will die within twenty-four to forty-eight hours unless eaten by small crustaceans where they differentiate into the first stage. The small crustaceans are eaten by fish and it is here that the embyro begins to develop and settles in the intestinal tract and then works its way into the muscles. The worm usually dies if heated above a temperature of 53°, or frozen at a temperature greater than –3°C. Curiously enough, many of the fish are put in salt and it has been shown that salt solution is one of the best mediums in which the worm will grow. It has been observed in most reports that infestation occurs more often in women than in men. The reason for this is that in preparing fish, a woman will taste it before it is properly cooked. This fact is of special significance in the Hebrew race.

The disease has been divided into two types: those individuals having symptoms without anemia, and those having symptoms with anemia. The symptoms are those pertaining to the central nervous system, gastro-intestinal tract, and the blood. Birkeland has made a comparison in his paper to show that the course of the disease is not exactly like pernicious anemia although they have many common features. For instance, in pernicious anemia, we consider achlorhydria in 100 per cent of the cases, whereas in this disease it is present in only about 83 per cent and in many there is a return of hydrochloric acid, whereas in pernicious anemia the hydrochloric acid never reappears.

The highest incidence of the disease occurs in the third decade of life. However, it does occur below the age of thirty years, whereas pernicious anemia is almost never present below the age of forty-six. As far as the central nervous system changes are concerned, they are exactly like those in pernicious anemia. The patients have mental symptoms and identical cord symptoms. About 10 to 20 per cent have a glossitis; some have severe stomatitis which is rarely seen in pernicious anemia, epigastric distress, cramps, alternating diarrhea and constipation.

In reference to the blood, many cases have been reported in which there is no anemia; the anemia, when present, is usually of the macrocytic type. Curiosly enough, eosinophilia is seldom noted until after treatment. I think one reason why this may occur is the fact that when a severe anemia is present there is hyperplasia of the red cell forming tissue of the bone marrow; it is conceivable that the eosinophilia tissue which is present may thus be crowded out. In this particular case, the man does have a very mild anemia—called anemia because the red blood cells are not of normal volume. In speaking about the blood in reference to whether normal or not, one no longer considers the number of red cells and hemoglobin alone but must also consider the red cell volume.

In the majority of cases the anemia is treated first with liver until there is a definite reticulocyte response. After the reticulocyte response and the blood returns to normal, the patients are then given the medicine to remove the worm. There are three reasons suggested why the anemia is not primarily due to the worm. Birkeland states that the anemia is not due to the organism because the majority of the patients who have the disease do not have an anemia; secondly, the patients may die from the anemia even without the worm being present. One must remember in this review, which was published in 1932, that between the period 1927 to 1928 there were but few patients treated with liver because it had been known only a very short time. Lastly, many patients who have the worm and anemia, both of which have been eliminated, may become reinfected with the worm several years later and not get an anemia; or, having the worm removed and the anemia disappear, the anemia may recur. The only evidences in favor of the organism being the cause of the anemia were two cases cited, one with the removal of the worm where the anemia disappeared, and, in the second case, where the type of anemia was produced experimentally in animals.

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EDITORIAL

TRADE OR PROFESSION

■ The Oxford dictionary defines a profession as "that which one professes or practices as a calling, especially one of the learned or liberal vocations; formerly sharply contrasted with trade or business, though the distinction is rapidly breaking down."

The ruling by the Circuit Court of Appeals following the attack of government attorneys upon the American Medical Association and others of our colleagues has emphasized this and made each of us peculiarly conscious of the breaking down of the distinction between a profession and a trade. The importance of the situation is that the distintegration has been almost wholly produced directly and indirectly by members of one or another of the professions.

It is interesting, also, to consider some of the causes for the "breaking down" of the distinction between the professions and the trades. Undoubtedly, one of the causes is that a few professional men in certain sections of the country are tradesmen and have never considered themselves other than tradesmen. They have wished to have the encomiums due the true professional man and not to carry the responsibility which is attendant upon this designation. Although realizing these are few in number it must be admitted that they have aided the degradation of the profession of medicine.

Other factors include: encroachment by trade on our field as in the case of the optometrist, reaction by certain groups to losses incurred by them because of the adherence by the doctor of medicine to a strict code of ethics, failure of certain bureaucrats and politicians to evaluate incidences as to the future rather than to the present, and, of course, many other obvious factors.

As has been partially indicated, a trade has some advantages and some responsibilities which are not a part of the professional life. The question can be asked: Does the Circuit Court of Appeals feel that we should revert to this classification and its "code"? Few of us believe this. It is much easier to assume that the interpretation is meant as a means to force the doctors of the United States to accept and obey without question the dictums of a temporary administrative policy. Should this be the final decision, medicine of the next generation will be a sorry spectacle changing its ethics and principles with each change of political party in government. Until such decision is finally made we shall go on as we have for many centuries, striving to relieve suffering to the best of our ability in our traditional professional manner.

CHARLES F. McKHANN, M.D.

■ The Medical School of the University of Michigan announced the appointment of Dr. Charles Fremont McKhann, Associate Professor of Pediatrics at Harvard University Medical



CHARLES F. MCKHANN, M.D.

School, to succeed the late David Cowie as Professor of Pediatrics at the University.

Dr. McKhann was born in Cincinnati, Ohio, December 21, 1898. He received from Miami University his A.B. degree in 1918 and B.S. in 1920; University of Cincinnati, M.A. in 1921, and M.D. at the same University in 1923. For the past eleven years he has been Assistant Professor and later Associate Professor of Pediatrics at the Harvard Medical School, except for one year, when he was Visiting Professor of Pediatrics at Peiping Union Medical College at Peiping, China. He was on the Staff of Children's

and Infants' Hospitals, Deaconess Hospital, Haynes Memorial Hospital for Contagious Diseases in Boston and Cape Cod Hospital in Hyannis, Mass. He is a member of: American Medical Association, Massachusetts Medical Society, New England Pediatric Society, Society Pediatrics Research (Past President), American Pediatric Society, American Academy of Pediatrics, Society for Clinical Investigation, American Public Health Association. He holds membership in three Honorary Societies: Phi Beta Kappa, Alpha Omega Alpha and Delta Omega. Dr. McKhann is married and has three children. He will assume his duties at the University of Michigan, September 1, 1940.

Michigan is fortunate in having a man of his ability to head the Department of Pediatrics at the University.

DOCTOR?

■ A story is recalled of the hillbilly sitting underneath the tree and howling with pain. A sympathetic passer-by watched for a few minutes and then said, "What is the matter?"

The hillbilly replied, "I'm sitting on a tack."

Almost every doctor of medicine is howling with rage because the quacks use the term "doctor." There are none of the barnacles on the ship of Healing Arts who dare to use the degree M.D.

Why not move off the tack?

Use "M.D." on your door and stationery!

"The adoption of a hobby has done much for many doctors in the way of giving them a sense of proportion in their mental outlook. There are certain subjects the doctor in his broader life of citizen cannot forego without detriment to himself. These are embraced in the category of general literature. World history and biography are being retold with the result that many excellent and informative books are accessible. To mention only a few would only give the writer's interest: others could prepare a list that would be equal or of greater interest. However, the reader should not read with the object of storing his mind with unrelated facts. He should approach all reading matter with the spirit of the critic. One should be a friendly critic as well as an adverse critic. It is by wrestling with facts that one gains intellectual strength and obtains a point of view. Facts are the raw material for judgments."—From "Be a Doctor, Plus," by J. H. Dempster, M.D., *Detroit Medical News,* Jan. 22, 1940.

CLINICAL PATHOLOGICAL CONFERENCE

(Continued from Page 267)

Dr. Sturgis.—Dr. Isaacs, would you like to discuss the case presented today?

Dr. Raphael Isaacs.—There are two interesting points in connection with the blood of this patient. First, this patient has received liver extract for 16 days and in this interval he has received enough liver extract to last a pernicious anemia patient three months. His blood count went up only 80,000 in that time. The second point is that the mean corpuscular volume is 105 cubic microns, which means that the cells are larger than normal. If the red blood cells are larger than normal, one would expect the bone marrow to show many megaloblasts as a block at the megaloblast stage produces large red blood cells. However, the bone marrow here has been reported as normal. The red blood cell measurements in this case showed about 20 per cent smaller than 7.5 microns, about 60 per cent 7.5 microns, and about 20 per cent larger. This is in contrast to the normal distribution 33-34-33 per cent. The most common condition in which we get this peculiar distribution of size is in chronic kidney disease. It is interesting in this connection to note that this patient had albuminuria. It is possible that the present blood picture may be associated with chronic nephropathy and not necessarily be connected with the infestation with a fish tapeworm.

Dr. Sturgis.—I think, in most cases where ova and macrocytic anemia occur, they are only coincidental. First there is a peak in the incidence of the disease at the age of thirty, which is unusual for pernicious anemia.

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DUTY TO RESPOND TO CALL*

By L. M. Ford, LL.B.

The erroneous impression prevails quite extensively that because a physician, under the law, would be liable for damages resulting from his abandonment of a patient, that he is not only morally but legally obligated under all circumstances to attend the sick when called upon. A few cases of this character have found their way into courts of justice

The laity are prone to infer that the duties of a physician are analogous to those of the common carriers, innkeepers and the like. There is in the law no foundation for this impression and indeed there are expressed decisions to the contrary.

The law regulating the duty of a physician to accept employment was first announced in New York in 1891, in the case of Becker vs. Janinski, 39 Med. Rec'd 461, wherein Judge Pryor, speaking for the bench, laid down the rule that a physician may decline to respond to the call of a patient unable to compensate him. The language of this judge was made the basis of a decision in the same state, in the case of Harris vs. Woman's Hospital, decided in June of the same year, and reported in 14 N. Y. S. 881.

It will be noted that the principle as announced in the foregoing decisions makes it optional with the physician as to whether he will accept employment from a patient unable to compensate him. The question then presents itself, would the same law also apply in a case where compensation is assured, in fact offered, at the time the services of the physician were sought.

A precedent has been established in favor of the physician by the decision of the Supreme Court of Indiana, in Hurley vs. Eddingfield, 59 N. E. 1058, where it was expressly held that not only was there no such obligation resting upon the doctor at common law, but also that the existence of a statute regulating the practice of medicine and granting licenses to those qualified, did not, by inference, create any such obligation. In this case, the defendant physician had been the decedent's family physician. The decedent became dangerously ill and sent for the defendant. The messenger informed the physician of the decedent's violent sickness, tendered him his fees for his services, and stated to him that no other physician was procurable in time, and that decedent relied upon him for attention. Without any reason whatever the physician refused to render aid to the decedent. Death ensued, owing to the defendant's refusal. On this statement of facts, the court held that the defendant had not been guilty of any wrongful act, saying:

"Counsel did not contend that before the enactment of the law regulating the practice of medicine, physicians were bound to render professional services to everyone who applied. The act regulating the practice of medicine provides for a board of examiners, standards of qualifications, examinations, licenses to those found qualified, and penalties for practicing without such licenses. The act is a preventative, not a compulsive measure. In obtaining the state license to practice medicine, the state does not require, and the licensee does not engage that he will practice at all or on other terms that he may choose to accept. Counsel's analogies drawn from the obligation to the public on the part of innkeepers, common carriers and the like are beside the mark."

Right to Discontinue Visits

Understanding the law then that a physician may elect as to whether he will accept employment in any given case, what are the relative duties of the physician and patient after the physician has entered into the employment?

Where the physician has once taken charge of a case, he assumes certain duties with regard to his attendance upon the patient which the law implies. In this, as in many other instances, the law takes cognizance of the relationship between the parties and of all the surrounding circumstances, and in the absence of any expressed agreements between the parties assumes that they have dealt with one another on the basis of such a contract as justice and reason would dictate. Accordingly, the law implies that where a physician had undertaken treatment, he has agreed that he will render such services as the advanced state of the profession, in his or similar localities, requires and will continue such attendance so long as the patient requires aid; and inasmuch as the law further implies that the physician represents himself to have ordinary skill in his profession, he is held to the exercise

*This article is Part I in the first of a series of authoritative discussions on medico-legal problems written by Mr. Ford, attorney for the Medical Protective Company, Wheaton, Illinois. Part II of this article will follow in the next issue.

of such ordinary skill and care in determining when his visits may be safely discontinued, should the physician fail to pay proper regard to his obligation and fail to visit the patient as frequently as his case demands or cease his attention at a time when the exercise of his judgment would demand his continuing attendance, he will be held liable in damages resulting from such failure.

By natural inference from a physician's duty to continue his attendance under an implied contract, it follows that the physician may limit or change this duty by an expressed stipulation at the time of undertaking the case. The duty to continue his attendance as long as the illness of the patient lasts only arises when there is no expressed understanding between the parties. These principles are announced in the case of Mucci vs. Houghton, 57 N. W. 305. A brief history of the facts in that case is as follows: A fracture was sustained by the patient on June 11. After giving attention to the injury, until the 7th day of August, by examining the condition of the fracture, the cast was removed and the surgical attention ceased. The plaintiff claimed that when the treatment ceased, the injury was not cured, but a false joint developed at the point of fracture. In the trial of the case the Court instructed the jury in the following language, which instructions were approved by the Supreme Court:

"If a physician or surgeon be sent for to attend a patient, the effect of his responding to the call, in the absence of a special agreement, will be an engagement to attend the case as long as it needs attention, unless he gives notice of his intention to discontinue his services, or is dismissed by the patient; and he is bound to exercise reasonable and ordinary care and skill in determining when he should discontinue his treatment and services. If you find from the evidence that the condition of the plaintiff's arm is due to his having been dismissed when he ought not to have been dismissed, the defendant would be liable, unless the evidence further satisfies you that the defendant, in dismissing him, if he did dismiss him, used ordinary and reasonable care and skill in determining when to dismiss him; and, if he dismissed him under a mistake of judgment, he would be liable, and you should hold him liable unless you have from the evidence that, in making up his mind when to dismiss him he exercised reasonable and ordinary care and skill, and had regard for and took into account the well settled rules and principles of medical and surgical science."

Frequency of Visits

As to the frequency of the visits, which a physician should make upon his patient, the physician is the sole judge, but in deciding this question he must exercise his best judgment, and if he is guilty of carelessness or ignorance in allowing an undue lapse of time between his visits he is liable in damages for any injury to the patient resulting therefrom. It has been decided numerous times that in actions for the collection of professional fees, the doctor is the proper and sole judge of the necessary frequency of his visits, so that in such an action he is not required to prove the necessity for his making the number of visits that he does make and for which he seeks compensation. Conversely, he is bound to render as frequent visits as is the custom and practice of physicians in good standing in the same or similar localities in the treatment of the same or similar cases. If, however, he is especially requested by the patient, who desires to save expense, to make less frequent visits than he would otherwise make, it is problematical whether this will excuse him from liability for any resulting damages from the infrequency of his visits, although it is true that such conduct on the part of the patient would justify him in refusing to further attend.

Termination of Employment

A question of prime importance arising on this subject is as to when and in what manner attendance may be terminated. While, as heretofore stated, a contract arises immediately upon the acceptance of employment to the effect that the services of the physician will continue as long as needed or until ended by the patient, yet the contract is one which may be terminated by either party at any time. Neither the physician nor his patient is bound to continue their relations longer than is pleasing to them, provided only that the party desiring to terminate the relationship gives the other reasonable notice. Thus, in the case of Dashiel vs. Griffith, 35 Atl. 1094, the court says:

"In consequence of the illness and death of the defendant physician's father, he was continuously absent from his patient and did not see plaintiff until after the finger had, on March 2nd, been amputated. If the defendant had, in his treatment of the finger, prior to the 24th of February exercised reasonable care, skill and diligence, and then because of the illness of

his father had turned the plaintiff over to Dr. C., a competent physician, for further treatment of his finger, and the plaintiff refused to go Dr. C. for treatment, then the liability of the defendant ceased, and the plaintiff assumed to herself the consequence of any injury resulting from the neglect of her finger, for it can not be said that the defendant, under any and all circumstances, was required to continue the treatment of the plaintiff. If he provides for further treatment of the patient, in such a manner as the defendant did in the case under consideration here, he has complied with every reasonable demand upon him."

It is ordinarily stated that the physician may cease his visits without incurring any liability for resultant injuries: first, when dismissed by the patient; second, upon giving the patient timely notice so that he may employ another doctor; third, when the condition of the patient is such as to no longer require medical treatment. It is self-evident that where a patient dismisses his physician or requests him not to call again until sent for, the physician should not be responsible for lack of subsequent treatment, even though at the time of such request it was evident to his skilled judgment that the patient should have continued under his treatment, and that there was danger in discontinuing it. The physician may, however, be required to advise the patient of the danger of discontinuing treatment.

In the case of Gedney vs. Kingsley, 16 N. Y. S. 792, the plaintiff had injured her arm and sent for the defendant. The defendant made two visits and then ceased to attend the plaintiff at her own request. The court says at page 793:

"The negligence and unskillfulness of the defendant are claimed on two grounds: First, he failed to discover the fracture; and second, he failed to continue his visits, and let the evil effects of the fracture continue until it was too late to restore the fractured arm to its normal condition. The evidence on both of these questions was contradictory. If the arm was so swollen that a complete assurance of the extent of the injury could not be discovered by a careful and skillful examination, and if the swelling was suffered to go on because the defendant was told to wait until he was sent for to continue the attendance, the case will fail for lack of proof. This was the finding of the jury, and the proof is sufficient to uphold the verdict. The parties differ in their remembrance of the facts. Dr. Haight, who examined the arm before the defendant, supports the defendant in his statement that the extent of the swelling prevented an examination which was needed to discover his fracture. The medical experts differ also upon the question whether a skillful surgeon ought to have discovered the fracture, but all agree that the swelling should have been reduced, and, if the plaintiff prevented that by requesting the defendant to make no other visits, on account of the expense, until he was notified, the defendant could not properly be blamed for the omission to diligently look after the case."

READING NOTICES

Parke, Davis & Co. Honored

The window display of Parke, Davis & Co., Detroit, Michigan, representing the first attempt on the part of any manufacturer to glorify the professions of medicine, nursing and pharmacy in a single showing, earned an Honorable Mention in the Window Displays Competition, sponsored by *Modern Packaging Magazine,* during National Pharmacy Week.

Designed to acquaint the public with the close relationship of these three professions, the display features a large centerpiece painting of Florence Nightingale, the first nurse, at work in a Crimean War hospital. Two smaller side pieces show the doctor and pharmacist.

* * *

What Every Woman Doesn't Know

What Every Woman Doesn't Know is that psychology is more important than flavoring in persuading children to take cod liver oil. Some mothers fail to realize, so great is their own distaste for cod liver oil, that most babies will not only take the oil if properly given but will actually enjoy it. Proof of this is seen in orphanages and pediatric hospitals where cod liver oil is administered as a food in a matter of fact manner, with the result that refusals are rarely encountered. The mother who wrinkles her nose and "makes a face" of disgust as she measures out cod liver oil is almost certain to set the pattern for similar behavior on the part of her baby.

Most babies can be taught to take the pure oil if the mother looks on it with favor and no unpleasant associations are attached to it. If the mother herself takes some of the oil, the child is further encouraged

On account of its higher potency in Vitamins A and D, Mead's Cod Liver Oil Fortified with Percomorph Liver Oil may be given in one-third the ordinary cod liver oil dosage, and is particularly desirable in cases of fat intolerance.

* * *

The value of Pyrethrum in Scabies is well established through the clinical work of Dr. S. E. Sweitzer (Scabies, further observations on its treatment with Pyrethrum Ointment, *Journal-Lancet,* Sept. 1936, Vol. LVI, No. 9, p. 467), who used it on 1,213 cases at the Minneapolis General Hospital. See advertisement, page 290.

YOU AND YOUR BUSINESS

OPPORTUNITY KNOCKS AT YOUR FRONT DOOR

Physicians of Ann Arbor, Battle Creek-Kalamazoo, Flint, Grand Rapids, Lansing-Jackson, Mount Clemens, Saginaw, Traverse City-Manistee, Cadillac-Petoskey, and surrounding territory: at your very front door, the best postgraduate program in the country is being brought to you!

Beginning April 8, the following subjects have been selected for the extramural courses, sponsored by the Michigan State Medical Society, the University of Michigan Postgraduate Department, and Wayne University College of Medicine:

Gastric Diseases

Obscure Fever

Diagnosis and Treatment of Common Anal and Rectal Diseases

The Management of the Arteriosclerotic-obese Patient

Relations of General Practice to Industrial Health

Leukorrhea

Multiple Sclerosis

Short, intensive courses in Detroit and Ann Arbor are available through the spring and summer months in the subjects of Allergy, Anatomy, Diseases of Blood and Blood-forming Organs, Diseases of the Heart, Electrocardiographic Diagnosis, Neuropsychiatry, Nutritional and Endocrine Problems, Ophthalmology and Otolaryngology, Special Pathology of Neoplasms, Pathology of Female Genito-Urinary Organs, Special Pathology of the Eye, Special Pathology of the Ear, Nose and Throat, Pediatrics, Proctology, Roentgenology, Urology.

The Summer Session Courses run from June 24 to August 16.

For programs and further information write the Department of Postgraduate Medicine, University Hospital, Ann Arbor, Michigan.

PRIVILEGED COMMUNICATION

Michigan's law makes mandatory the privileged communication between physician and patient. The object of the statute is to prevent the abuse of the confidential relation existing between the physician and his patient, and is *for the protection of the patient;* it enables persons to secure medical aid without betrayal of confidence.

Section 14,216 of the Compiled Laws of 1929 reads as follows:

"Physician-Patient Privilege. No person duly authorized to practice medicine or surgery shall be allowed to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon: Provided, however, That in case such patient shall bring an action against any defendant to recover for any personal injuries, or for any malpractice, if such plaintiff shall produce any physician as a witness in his own behalf, who has treated him for such injury, or for any disease or condition, with reference to which such malpractice is alleged, he shall be deemed to have waived the privilege hereinbefore provided for, as to any or all other physicians, who may have treated him for such injuries, disease or condition: Provided further, That after the decease of such patient, in a contest upon the question of admitting the will of such patient to probate, the heirs at law of such patient, whether proponents or contestants of his will, shall be deemed to be personal representatives of such deceased patient for the purpose of waiving the privilege hereinbefore created."

The information here referred to is not confined to communications made by the patient to the physician, but the law protects, with the veil of privilege, whatever, in order to enable the physician to prescribe, was disclosed to any of his senses, and which in any way was brought to his knowledge for that purpose. All disclosures made by the patient to the physician respecting his ailments are privileged, whether they are necessary to enable the doctor to prescribe for him as a physician or not.

Law Not in Force When Patient Consents to a Disclosure

This statute merely establishes a privilege, *which must be claimed before the testimony is admitted,* or it is waived. Furthermore, this statute is of no force when the patient consents to a disclosure.

In the special Michigan Act providing for the protection of the reputation and good name of certain persons, such as unmarried pregnant women, Section 12,720 specifically provides punishment by a fine of not less than $25.00 nor more than $100.00 plus costs for the violation of confidence by the physician and certain others who have access to the records of the case.

Unprivileged Communication

The privilege does not cover information not necessary to enable the doctor to prescribe for the patient.

A physician may testify that he is the family physician of a patient and as to the number and dates of his professional visits.

Information to a physician relative to violation of the Michigan Narcotic Drug Act is not deemed to be a privileged communication (Section 9,234-18).

Under Michigan's marriage law, any person who has been afflicted with syphilis or gonorrhea and has not been cured, who shall marry, shall be deemed guilty of a felony. In all such cases any physician who has attended or prescribed for any husband or wife for either of the diseases above mentioned shall be compelled to testify to any facts found by him from such attendance (Section 12,695).

MALPRACTICE—SUBSTITUTE FOR EXPERT TESTIMONY

It is a commonplace that, in malpractice actions against physicians, the plaintiff has no hope of recovery unless he is able to produce an expert medical witness to testify that the defendant's conduct was a departure from the method of treatment generally prevalent among skilled practitioners in the community, and so constituted malpractice. And it is equally well known that, save on rare occasions, such expert witnesses are not available to the plaintiff. Yet, from time to time, cases occur in which the circumstances and the ingenuity of counsel enable the plaintiff to overcome his difficulties.—"In the Courts," Amer. Jour. Med. Juris., July, 1939.

DUTY TO RESPOND TO CALL

A question frequently asked is whether a doctor of medicine is legally compelled to accept a call to render professional services.

There is no law, state or federal, that compels anyone to accept work or render services against his will. This opinion has been backed by the Michigan Attorney General, as well as by the Michigan State Board of Registration in Medicine.

If a doctor of medicine accepts a patient, however, or promises to render services, he is responsible until such time as he discharges himself or is discharged by the patient, parent or guardian.

An illuminating article on this subject, written by a specialist in medico-legal jurisprudence, begins in this issue of The Journal. Know the law, for your own protection.

MICHIGAN PHYSICIANS DONATING OVER $28,000,000 IN MEDICAL CARE

Based on the estimate of the New Jersey Medical Society that each doctor of medicine donates approximately $4,000 in medical services per annum to persons unable to pay for same, Michigan physicians, numbering 6,129, will contribute in 1940 at least $24,516,000.

To this staggering total can be added the 50 per cent discount given to governmental agencies for the care of "wards of the State" which, based on the anticipated case-load in 1940, represents an additional $3,500,000. A grand total of $28,016,000 is the voluntary contribution to charity by our Michigan doctors of medicine.

AMERICAN COLLEGE OF SURGEONS

Detroit-Ann Arbor Sectional Meetings

A medical educational event of supreme importance to the profession and the public will be the coming Detroit-Ann Arbor Sectional Meeting of the American College of Surgeons. The par-

ticipating states and province will be Michigan, Ohio, Indiana, Illinois, Wisconsin, and Ontario. A long list of brilliant and authoritative speakers from all parts of the country will officiate at and address the various sessions. The dates of the meeting are April 1, 2 and 3. Headquarters will be at the Hotel Statler where many of the sessions will be held. Additional program features will attract the visitors to the medical schools and a number of the local hospitals to observe operation and demonstrations.

Those directing the arrangements are eager to have the benefits of this meeting shared by the entire medical and hospital personnel of Michigan, as well as by the public. The meeting will constitute, in effect, a compressed postgraduate course in the latest developments in medicine and surgery, and recent trends in medical thought, that no Michigan physician, even though he does not do surgery, can afford to miss.

The final session of the conference will be meeting on Health Conservation in the auditorium of the Masonic Temple, Wednesday, April 3 at 8:00 P. M. This will be open to the general public and the addresses of the evening will be such as will be not only interesting but profitable and the College hopes that the immense auditorium will be packed to capacity. Advance in modern surgery will receive prominent attention as will the cure of cancer and other subjects in which the profession and laity are both vitally interested.

PRINCIPLES OF MEDICAL ETHICS

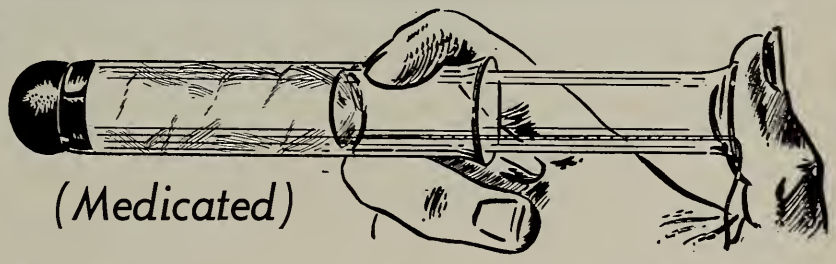
The Physician's Responsibility

Section 1.—A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

Groups and Clinics

Section 2.—The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. As a group or clinic is composed of individual doctors, each of whom, whether employer, employee or partner, is subject to the principles of ethics herein elaborated, the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession.

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PERFECTION VAGINAL TAMPON (Medicated) is a safe, rational and up-to-date applicator for the topical medication of the vaginal and cervical mucosa.

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Each Tampon contains: Ichthammol 10 grains, Glycerite of Boroglycerin g.s. It is an individual applicator complete with medicated suppository and compressed Tampon of lamb's wool designed for easy introduction in a single operation. Moisture-resistant cord makes for easy removal.

PERFECTION VAGINAL TAMPON (A Hartz Laboratory Product) is the simple, convenient and modern Tampon that you can depend on. Write or phone for your supply today.

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YOU AND YOUR GOVERNMENT

NEW SALES TAX REGULATIONS

The Michigan State Board of Tax Administration issued new rules and regulations for the general Sales Tax, on March 1, 1940.

The status of physicians, surgeons and dentists is covered in Rule 61:

"Physicians, surgeons, dentists, veterinarians, or other practitioners of the healing arts not otherwise specifically provided for in these regulations are deemed to be engaged in rendering personal services which are not taxable.

"Sales of drugs, medications, instruments, laboratory or other furniture and fixtures, and other tangible personal property to such persons for their use in the course of rendering personal services, or in connection with their offices, laboratory or other similar quarters, are taxable."

Pharmacists are instructed to charge a tax of 50 per cent of the normal tax charged for prescriptions, half of the pharmacist's time being considered a professional service. Rule 57 reads as follows:

"Pharmacists are considered to be persons, who, for the protection of public health, are designated by state statute as qualified through education, training and experience to engage in the business of compounding and filling prescriptions, and who by state statute become professionally responsible for the accuracy of such compounding and filling, said prescriptions being written only by physicians and other practitioners of the healing arts who by state statute are permitted to write such prescription.

"Where licensed pharmacists fill such prescriptions for sale to ultimate consumers, such pharmacists shall be deemed to be selling tangible personal property at retail while rendering professional services, in which case the tax will apply to fifty per cent of the amount charged for such prescription, providing a record shall be kept in the taxpayer's place of business showing the date the prescription was issued, the name of the person who issued it, the name of the person for whose consumption it was issued, the contents of the formula prescribed, and the amount charged to the consumer. This information may appear either in the form of the original prescription attached to a substantial record in chronological order or in a transcribed record in the same order, such records to be kept for a period of four years; further provided that the sale of drugs without such prescription, or of appliances or other property, to consumers whether or not sold by prescription, is taxable at the full sale price."

STERILIZATION OF MENTAL DEFECTIVES

Since 1923, Michigan has had a law on its statute books "to prevent the procreation and increase in number of feeble-minded, insane and epileptic persons, idiots, imbeciles, moral degenerates, and sexual perverts, likely to become a menace to society or wards of the State."

The present statute (Sections 6645 to 6656), passed by the 1929 Legislature, gives jurisdiction to the probate court to hear and determine cases relating to sterilization of mental defectives.

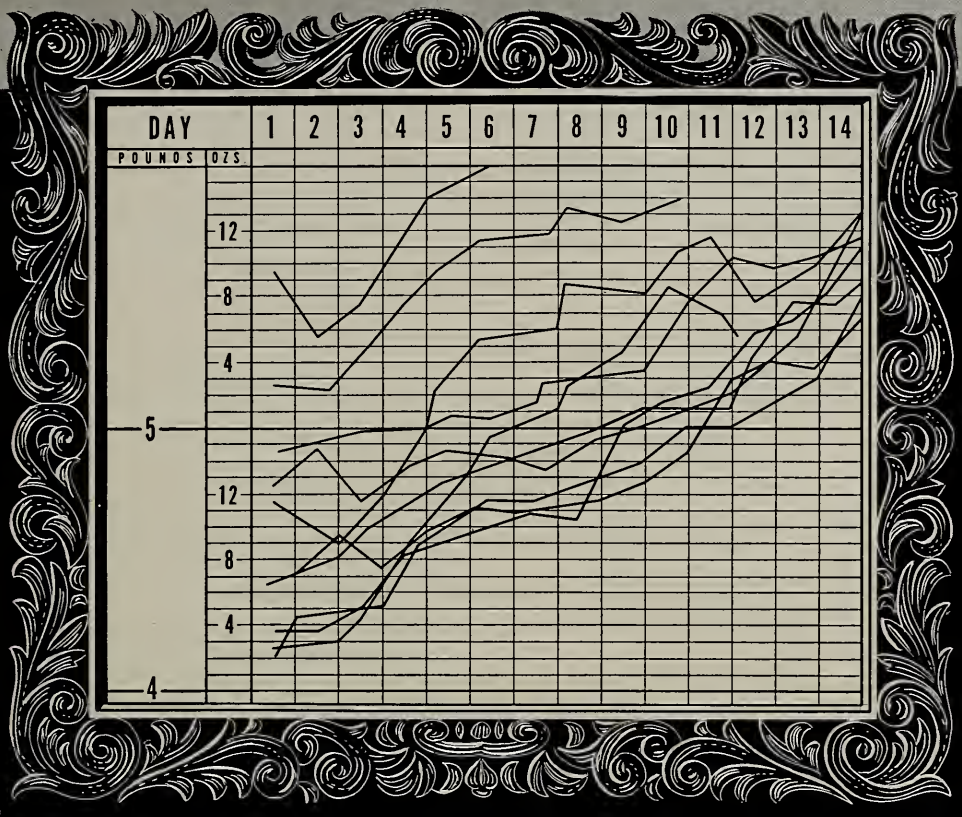
Sterilization is permitted in two ways: (a) by consent; (b) by court order.

Whenever a defective person is of the age of sixteen years or more and not otherwise incapable of giving consent, such operation or treatment may be performed upon obtaining a consent in writing, signed by such defective person, together with a similar consent in writing signed by his or her legal guardian, and also by one next of kin.

The father, mother, husband, wife, brother, sister, child or guardian of a mentally defective person, the medical superintendent, director of any state institution, the State Social Welfare Commission, any sheriff or superintendent of the poor, or supervisor of any township, may petition the probate court of any county in which a mentally defective person resides or in which may be located any state institution having the mentally defective person's care, for an order directing treatment or operation of vasectomy, salpingectomy, or other operation or treatment. The law sets out specific requirements of procedure which must be substantially complied with, to make the court order legal. If the court deems it necessary or if such defective person or any relative or legal guardian so demands, a jury shall be summoned to determine the questions of fact.

The court shall appoint two physicians to investigate and examine the mental and physical condition and personal and family history of the defective, and report same to the court with

Thrifty Prematures



These weight curves of premature infants, made from hospital records*, show the consistent gain in weight that is typical of small twins and prematures fed on Similac. The fact that Similac is well tolerated and well utilized even by the immature digestive tract of the premature, demonstrates how fully this food meets the exacting nutritional requirements of infants deprived, either wholly or in part, of mother's milk. Similac nourishes dependably from birth until weaning.

*Name of hospital on request.

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SOLE IMPORTER

opinions as to whether the person is defective within the meaning and intent of the law.

The expense of the operation or treatment, together with the physicians' fees and all other expenses incurred in connection with such proceeding, is a proper charge against the State of Michigan. The law provides that such operations or treatments shall be performed by the regular surgeon of the state institution wherever possible; and when not so performed, the liability of the State for surgeons' fees and other expenses including care shall in no one case exceed the sum of $50.00.

"No surgeon performing an operation or providing treatment under the provisions of this Act shall be held liable either criminally or civilly on account thereof, except only in case of negligence in the performance of such operation," states Section 6654 of the Public Acts of 1929.

NEW CONDITIONS

Propaganda coming into widespread use has adversely affected the status of the physician and altered the viewpoint and the attitude of the patient.

The future of American Medicine will be determined by the manner in which the doctors face and respond to this new challenge and new responsibility.

If the ethical and scientific standards are to be maintained, the independence of American Medicine preserved, and the public interest best served, American physicians must:

1. Make possible the providing of medical service to the indigent and those in the low income groups, and insure the most widespread distribution of the most effective methods and equipment in medicine and surgery.
2. Assume the responsibility of countering destructive propaganda by familiarizing the public with the facts in connection with the methods and the achievements of American Medicine.

To meet these needs the *National Physicians' Committee for the Extension of Medical Service* came into being.

Initially it will advocate:

1. The maintenance of independent private medical practice.
2. The preservation and extension of our independent hospital system.
3. The centralization of all Health Services of Federal and State governments.
4. The determination of health requirements on the basis of locally gathered and locally interpreted data and the utilizing of grants-in-aid only under conditions of locally demonstrated needs.
5. Control and disbursement of public health funds by administrators locally appointed or locally elected.

This committee will, to the fullest possible extent within the abilities and resources, familiarize the general public with its program and policies through—

1. The daily, weekly and trade papers.
2. Magazines—radio—public meetings.
3. The coöperation and services of other agencies or organized groups—which can aid effectively in promoting the objectives sought.—National Physicians' Committee for the Extension of Medical Service.

IN MEMORIAM

James Douglas Crane, of Ishpeming, Michigan, was born April 22, 1892, in St. Mary's County, Maryland. He was graduated from the University of Maryland in 1914. Early in 1917 he joined the United States Army Medical Corps, having spent fifteen months in a base hospital over seas, with the rank of Captain. Dr. Crane was a member of the staff of Ishpeming Hospital from July, 1919, to the time of his death on December 18, 1939. He was also Chief of the Staff of the Cleveland Cliffs Medical Department.

* * *

John B. Dibble, of Detroit, Michigan, was born in Ohio City, Ohio, in 1894, and took his pre-medical work at the University of Michigan and was graduated from Wayne University College of Medicine in 1920. Florence Crittenton Hospital in its modern home in a monument to Dr. Dibble, where he was chief of the division of obstetrics and gynecology. He was also on the Harper Hospital staff and instructor in his specialty at Wayne University College of Medicine. He died on February 8, 1940.

* * *

Walter MacCracken, Detroit, Michigan, was born in Albion, N. Y., January 27, 1870. Dr. MacCracken received his medical degree from the University of Louisville. He was Dean Emeritus of the Medical College of Wayne University, Detroit. He died March 3, 1940.

* * *

Robert D. MacKenzie, Detroit, Michigan, was born in Toronto, Ontario, Aug. 16, 1891, and was graduated from Toronto University in 1914. Dr. MacKenzie served two years in the World War as a Medical Officer. He was wounded in 1917 at Passchendaele and was awarded the Military Cross for bravery in action. He died Jan. 28, 1940.

* * *

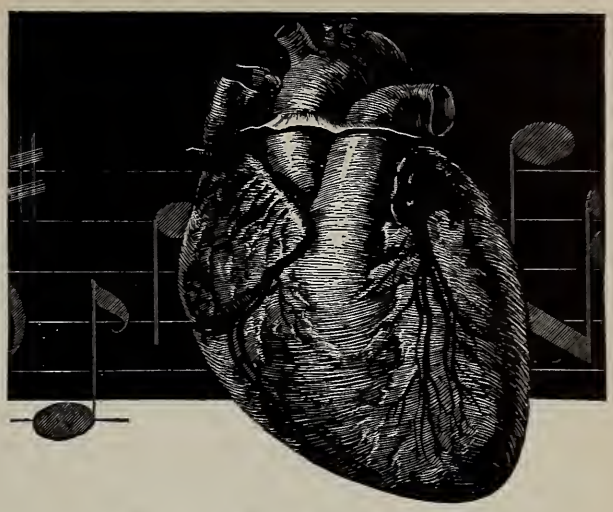
Emil P. W. Richter, Saginaw, Michigan, was born in Saginaw, February 10, 1875, and received his medical instruction in the universities of Vienna, Paris, Berlin and New York. During the World War, he served two years with the American Expeditionary forces and was a lieutenant-colonel in the medical reserve corps. Dr. Richter died on December 21, 1939.

* * *

Glenn Wiley Stockwell, Detroit, Michigan, was born in Birmingham, Michigan, October 29, 1879, and was graduated from the Detroit College of Medicine in 1903. Dr. Stockwell was on the Surgical Staff of Harper Hospital. He was also surgeon for the Detroit Fire Department and Grand Trunk Railroad for thirty years. He died February 19, 1940.

* * *

Charles M. Watson, Lansing, Michigan, was born on a farm east of Holt in Delhi township, on August 9, 1859. He attended the University of Michigan and obtained his medical degree from the Hahnemann Medical school in Chicago. Dr. Watson was the oldest practitioner in Lansing. He died February 16, 1940.



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Woman's Auxiliary

Bay County: The Auxiliary met at the home of Mrs. E. S. Huckins for their regular monthly meeting on January 10, with twenty-nine members present.

Dr. L. Fernald Foster gave a very interesting and instructive talk on "Michigan Medical Service."

Genesee County: The Auxiliary enjoyed a luncheon, February 28 at the Dresden Hotel, with forty-two present.

Mrs. Gordon Willoughby, president of the Auxiliary, gave a brief résumé of the Safety Council meeting which she attended with Mrs. J. H. Curtin and Mrs. J. A. Macksood, calling attention to the "Adult Pedestrian Safety" program being emphasized in Flint at present.

Mrs. Wm. Hubbard introduced the guest speaker, Mrs. Arthur Kretchmar, who gave a comprehensive picture of "Six Years in Africa."

Mrs. M. S. Chambers was chairman of the program and serving with her was Mrs. A. Dale Kirk, Mrs. J. Houston of Swartz Creek and Mrs. N. A. C. Andrews of Flushing.

Mrs. Willoughby announced the committee in charge of arrangements for a Spring Dance: Mrs. Lafon Jones, chairman, assisted by Mrs. G. Goering, Mrs. Alvin Thompson, Mrs. George Curry, Mrs. A. McArthur and Mrs. Kenneth Moore.

Houghton, Baraga, Kewecnaw: The Auxiliary met at the Douglass House, January 2, at dinner, followed by a business session.

The retiring officers, Mrs. L. E. Coffin, president, Mrs. I. D. Stern, president-elect, Mrs. T. P. Wickliffe, vice-president, Mrs. Paul Sloan, secretary-treasurer, are succeeded for 1940 by Mrs. Stern, president, Mrs. Wickliffe, president-elect, Mrs. J. Burke, vice- president, Mrs. Paul Sloan, secretary-treasurer.

A review of outstanding activities of 1939 included a tea given in October for the benefit of the Sanatorium. The generous support of the public made possible the raising of a fund of $175 to supply extra comforts for the patients.

A Christmas party held at the home of Mrs. Wickliffe of Calumet terminated the year's activities. On this occasion a typewriter was donated for the use of the Orthopedic school, and a small sum was raised by individual contribution to purchase other needed supplies for the school. The members each brought a gift in the form of a toy to the party, these gifts being turned over to the Salvation Army for distribution at Christmas time.

Plans for activities of the ensuing year were discussed, and committees were appointed as follows: Mrs. Coffin, program; Mrs. LaBine, social chairman; Mrs. Levine, public relations; Mrs. Cooper, publicity.

Kalamazoo County: Mrs. L. G. Christian of Lansing, state president, spoke to the Woman's Auxiliary to the Kalamazoo Academy of Medicine at the February meeting, on the program for the Auxiliaries, stressing the importance of accurate medical information by doctors' wives. She suggested that talks given by competent medical men on subjects of interest to the public might be sponsored by the Auxiliary in an effort to acquaint the lay people with present medical problems. Mrs. H. L. French, state secretary, Lansing, and Mrs. A. Howard Pirie, Montreal, were also honor guests at the meeting.

At dinner in the Green Room of the Civic Theater, forty-six members and guests were present.

After the dinner and business meeting, Dr. H. C. Bodmer showed his colored movies of trips taken in Guatemala and Hawaii.

The hostesses for the evening were, Mrs. R. T. Fuller, Mrs. W. D. Irwin, Mrs. A. S. Youngs, Mrs. L. W. Gerstner, Mrs. Paul Fuller, Mrs. L. E. Westcott and Mrs. J. G. Malone.

Kent County: The members of the Auxiliary greatly enjoyed the book review, "I Ran Away to Sea at Fifty" by Mary Sheridan Fahnestock, given by Mrs. Leland McKinlay. It is the tale of a grandmother who goes on an ocean trip with her two sons, surveying the coasts of Borneo and Tahiti from the after deck of the sixty-five foot schooner "Director."

Mrs. Lucian Griffith, the membership chairman, introduced the new members, who are: Mrs. J. Russell Brink, Mrs. Harold J. Damstra, Mrs. W. J. Haeck, Mrs. Ralph Gilbert, Mrs. Stephen Hallander, Mrs. Jerome Webber, and Mrs. J. Donald Flynn.

A Valentine Tea followed with Mrs. Virgil Stover and Mrs. C. Allen Payne in charge.

Monroe County: The Auxiliary and Medical Society held a joint dinner meeting at the Park Hotel on February 15, when Mr. Lee A White of the *Detroit News* talked on "What Can We Believe?"

Van Buren County: The Auxiliary was organized just a year ago, but we have held our meetings regularly each month, having pot luck dinners and three joint dinners with the Doctors.

At Christmas time we each took a name from the Infirmary and sent a gift box.

We hope to accomplish many worth while things during the coming year.

Washtenaw County: The annual dinner meeting of the Medical Society and Woman's Auxiliary was held February 13 at the Michigan Union.

Miss Margarita Johnson, daughter of Dr. and Mrs. L. J. Johnson, gave two solo dances. Mr. Lee A White of the *Detroit News* editorial staff gave a stimulating address on "What Can We Believe?"

Wayne County: The February meeting was held on February 9 in Alger Center, the group adjourning later to the club house for tea. Mrs. James McEvoy, chairman of the Detroit Branch of the Maternal Health League of Michigan and vice president of the Maternal Health League of Michigan, spoke on "Maternal Care" in conjunction with the showing of the picture, "Why Let Them Die?" Mrs. Howard Doub and Mrs. Richard Connelly were hostesses at the tea which followed.

On February 23 the Ways and Means Committee gave a Bridge-Tea and Bake Sale at the headquarters for the benefit of the Auxiliary's Student Loan Fund. Hostesses for this occasion were Mrs. Roger V. Walker, chairman of the Ways and Means Committee, and her committee. It was a most delightful and successful affair.

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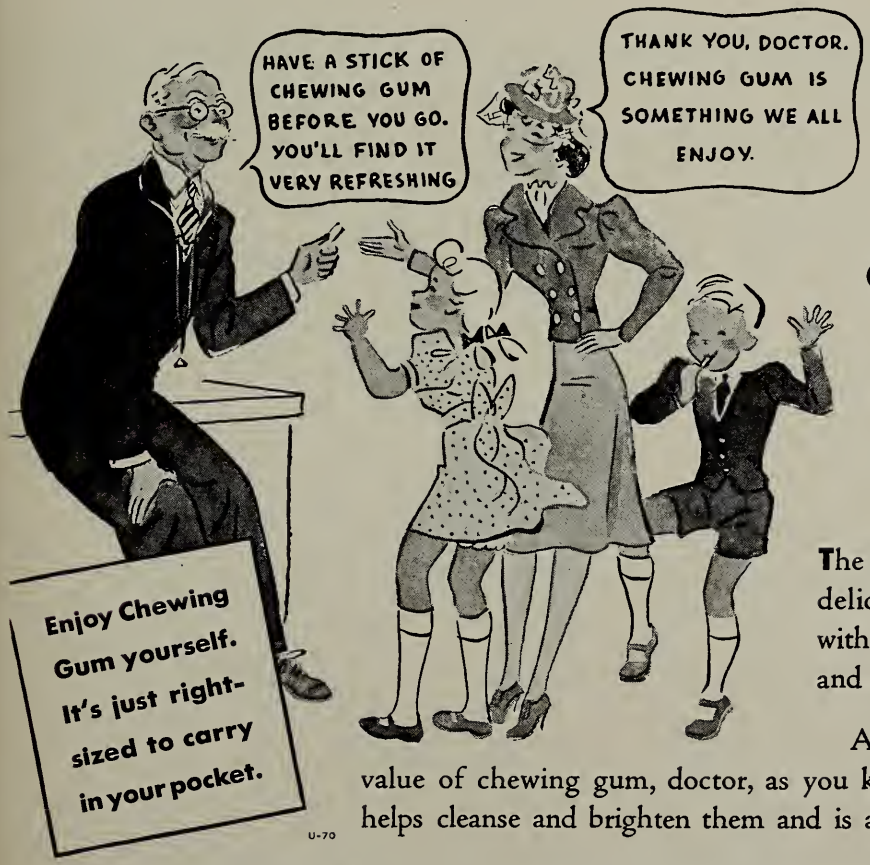
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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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INFANT, MATERNAL DEATHS REACH NEW LOW IN 1939

Provisional statistics released by the Bureau of Records and Statistics show that 1939 was the safest year in the history of Michigan for babies to be born, and safest also for their mothers.

New low records were established in infant and maternal mortality. For the first time deaths of mothers from causes connected with childbirth dropped below 3 per 1,000 live births The 1939 maternal mortality rate was 2.91 compared with the 1938 rate of 3.56.

The new infant mortality record was 41.97 deaths per 1,000 live births. This was the third successive year that a new low infant mortality mark had been set.

Last year 94,432 babies were born, compared with 96,962 in 1938. The birth rate of 18.52 was a slight decline, but with the exception of 1938 it was still higher than it had been any year since 1930.

The general death rate in 1939 was 10.20 per 1,000 population, an increase from the 1938 rate of 9.94. Deaths for 1939 totalled 52,017; those for 1938 totalled 50,678.

Marriages in 1939 were 25 per cent ahead of 1938 figures, although still about 10,000 short of the 1935 and 1936 totals. There were 37,698 marriages in 1939 compared with 30,105 in 1938.

POSITIVE V.D. REPORTS GO TO LOCAL HEALTH OFFICERS

Copies of reports of positive findings of syphilis and gonorrhea will be sent by Michigan Department of Health laboratories to the full time health officers concerned, according to a policy recently announced by the state commissioner of health.

This policy will enable health officers to maintain a more accurate check on the incidence of venereal disease in their jurisdiction and to coöperate with doctors in the follow-up of lapsed cases. These reports will be considered confidential closed records by the local health officer. This action was in accordance with a recommendation of the Syphilis Control Committee of the State Medical Society and was approved by the Society's Council.

PAUL JESERICH, D.D.S. APPOINTED TO COUNCIL

Paul H. Jeserich, A.B., D.D.S., Ann Arbor, was appointed on February 7 by Governor Dickinson as a member of the State Council of Health for the term ending June 30, 1945. Doctor Jeserich succeeds Dr. Carleton Dean of Charlevoix, who resigned recently to become deputy state health commissioner.

Dr. Jeserich is president of the Michigan State Dental Society. As director of postgraduate education at the University of Michigan School of Dentistry, during the past year he has had the added responsibility of supervising plans, construction and equipment of the new W. K. Kellogg Foundation Institute of Graduate and Postgraduate Dentistry which is to be dedicated April 3. Dr. Jeserich is a fellow of the American College of Dentists and member of the Judicial Council and the Council on Therapeutics of the American Dental Association.

AMPLE PERTUSSIS VACCINE IS NOW AVAILABLE

An ample supply of pertussis vaccine (Kendrick) is now available for the use of physicians. This vaccine may be obtained free upon request to the local biologic distributing stations of the Michigan Department of Health. The Department laboratories have built up a reserve supply of vaccine sufficient to immunize 10,000 children. Local distributing stations may obtain sufficient supplies of vaccine to meet all requests.

Whooping cough vaccination is recommended for all children from three months of age up to their fifth birthday. With the coming of the spring months and their usual high incidence of whooping cough, it is expected that physicians will require increased amounts of vaccine. Last year 8,997 cases of whooping cough were reported in Michigan. This was a considerable decrease from the 14,563 cases reported in the previous year. January was the peak month in 1939, but from 700 to 900 cases were reported each month from March through August.

RABID ANIMALS PROVE COSTLY MENACE

The threat of rabies is costing Michigan approximately $200,000 annually for the production of vaccine and the medical care of persons bitten by supposedly rabid animals, it has been estimated. In addition to this the State Department of Agriculture recently declared that boards of supervisors were making annual expenditures of $125,000 to pay for livestock losses due to rabid animals.

The Michigan Department of Health is spending more than $18,000 for the production of rabies vaccine alone. This cost is higher than that for the production of smallpox and diphtheria biologics combined.

The Department laboratories report a current increase in specimens received for diagnosis. Approximately 100 were received during February, 75 per cent of these showing positive indications of rabies. The February specimens were twice those received in January. A total of 287 heads were received for examination during the first six months of the fiscal year. Six counties are now under quarantine for rabies, the Department of Agriculture has announced.

Recently the State Council of Health adopted a new regulation requiring that "whenever a suspected case of human rabies or death following administration of prophylactic vaccine comes to autopsy, the person making the autopsy shall be responsible for immediately transferring a portion of the brain and spinal cord to the State Laboratories in Lansing for pathological examination and animal inoculation. A history of the case shall accompany the specimen."

HEALTH OFFICER CHANGES

Dr. L. W. Switzer, director of the Mason-Manistee Health Department since 1936, will become director of the recently-organized Cass County Health Department, effective April 1.

Dr. James A. Dolce, who has been serving as director of the Sanilac County Health Department, has resigned as of March 1 to accept an appointment with the United States Public Health Service. Dr. Frank J. Hill, who is completing his postgraduate training in public health administration at Yale University, will succeed Dr. Dolce as director of the Sanilac County Health Department. Later at a date yet to be announced, Dr. Hill will become the new director of the Mason-Manistee Health Department. Dr. Lloyd H. Gaston, who is on leave of absence for post-graduate study, will return this spring to resume his position as director of the Sanilac County Health Department.

Dr. Wallace M. Chapman, who has been engaged in county health work in Kentucky for the past five years, has been appointed as health officer for District No. 3 Health Department, including the counties of Antrim, Charlevoix, Emmet and Otsego. Dr. Chapman succeeds Dr. Carleton Dean, who resigned to accept the position as deputy state health commissioner.

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✶ COUNTY AND PERSONAL ACTIVITIES ✶

100 Per Cent Club for 1940

Ingham County Medical Society
Livingston County Medical Society
Manistee County Medical Society
Menominee County Medical Society
Muskegon County Medical Society
Newaygo County Medical Society
Tuscola County Medical Society

The above seven progressive and wide-awake County Medical Societies have each certified dues for 100 per cent of their physicians who were members in 1939. Is your Society one of the other forty-seven with only one or more unpaid members?

L. G. Christian, M.D., Lansing, addressed the Charlotte Kiwanis Club on February 27.

* * *

President Burton R. Corbus, M.D., Grand Rapids, appeared on the program of the Ottawa County Medical Society on March 5.

* * *

The American Public Health Association will hold its sixty-ninth Annual Meeting in Detroit at the Hotel Statler, October 8 to 11.

* * *

Wilfrid Haughey, M.D., Battle Creek, addressed the Southwestern Michigan Society of X-Ray Technicians at Kalamazoo on March 20.

* * *

Don W. Gudakunst, M.D., former State Health Commissioner of Michigan, has accepted the position of Medical Director of the National Foundation for Infantile Paralysis with offices in New York City.

* * *

The United States Pharmacopœial Convention will hold its next meeting at Washington, D. C., beginning May 14, 1940. The Revision of the Pharmacopœia of the United States of America is the purpose of the Convention.

* * *

Harrison S. Collisi, M.D., Grand Rapids, member of the Public Relations Committee of the State Society, addressed the Allegan, Berrien and Kent County Medical Societies in February, and the Barry, Ionia-Montcalm, Kalamazoo and Ottawa County Medical Societies in March.

* * *

A clinicosurgical week under the direction of The Mayo Foundation will be held at Rochester, Minnesota, May 6 to 11, inclusive. A series of surgical clinics and discussions will be presented with particular emphasis on the treatment of cancer. Visiting physicians are invited to attend.

* * *

The following Health Talks were released by the MSMS Radio Committee for Broadcast over Radio Station CKLW during March: March 1—7:30 p. m.—"Cancer is Curable," by Harry C. Saltzstein, M.D., Detroit

March 8—7:30 p. m.—"Mental Health," by John M. Dorsey, M.D., Detroit

March 15—7:30 p. m.—Luther Leader, M.D., Detroit, "Exercise of the Middle-Aged."

All members of the Michigan State Medical Society are cordially invited to attend the annual Ingham County Clinic which will be held at the Hotel Olds, Lansing, May 2, 1940. The program promises to be exceptionally worthwhile with such men as Henry M. Goodyear, M.D., Cincinnati; W. Calhoun Stirling, M.D.; Reed M. Nesbitt, M.D., Ann Arbor; and Arly Barnes, M.D., Rochester, Minnesota, listed among those who will speak.

* * *

The Place?.....Detroit, Book-Cadillac Hotel!
The date?.....September 25, 26, 27, 1940!
What?.....75th (Diamond) Convention of the Michigan State Medical Society

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* * *

The Iodized Salt Committee, at a meeting on March 6, 1940, adopted the following Resolution.

"The Iodized Salt Committee of the Michigan State Medical Society expresses its deep appreciation of the initiative of Dr. David Murray Cowie in organizing the Committee and his inspiring activity in stimulating its successful functioning.

"It expresses further its sense of loss in his departure and extends to his family its sincere condolence."

* * *

Allan W. McDonald, M.D., Detroit, President-Elect of the Wayne County Medical Society, has been chosen General Chairman on Detroit Arrangements in connection with the 1940 Convention of the Michigan State Medical Society. Wesley G. Reid, M.D., Detroit, has been selected as Chairman of the Golf Committee which will make arrangements for the Fourth Annual MSMS Golf Tournament.

* * *

The American College of Physicians held its Twenty-fourth Annual Session in Cleveland, April 1 to 5. Michigan physicians who appeared on the program included James D. Bruce, M.D., Ann Arbor; Henry Field, Jr., M.D., Ann Arbor; Daniel Foster, M.D., Detroit; Raphael Isaacs, M.D., Ann Arbor; John G. Mateer, M.D., Detroit; Carey P. McCord, M.D., Detroit; Wm. D. Robinson, M.D., Ann Arbor; F. J. Smith, M.D., Detroit; Cyrus C. Sturgis, M.D., Ann Arbor; and Frank N. Wilson, M.D., Ann Arbor. James D. Bruce, M.D., Ann Arbor, will assume the office of President at the session, succeeding O. H. Perry Pepper, M.D., of Philadelphia. Henry R. Carstens, M.D., Detroit, is a member of the Board of Governors.

* * *

The Annual Pediatrics Postgraduate Course, a part of the Semi-annual Conferences for Physicians, was held in Detroit April 1, 2, 3, 1940. This course was sponsored by the Wayne County Medical Society, Detroit Department of Health, University of Michigan, Michigan State Medical Society, Wayne University College of Medicine, American Academy of Pediatrics, Detroit Tuberculosis Sanatorium, Inc., and the Michigan Department of Health.

Speakers on the program included W. C. C. Cole, M.D., Harry Towsley, M.D., D. J. Barnes, M.D., P. J.

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* * *

COUNCIL AND COMMITTEE MEETINGS

1. Wednesday, February 28—Child Welfare Committee—School for the Blind, Lansing—1:00 p. m.
2. Thursday, February 29—Syphilis Control Committee—Hotel Olds, Lansing—5:00 p. m.
3. Sunday, March 10—Syphilis Control Committee—Hotel Olds, Lansing—3:00 p. m.
4. Thursday, March 21—Executive Committee of The Council—Hotel Porter, Lansing, 3:00 p. m.

* * *

The American Board of Internal Medicine announces that it will conduct its next oral examinations just previous to the meeting of the American College of Physicians in Cleveland and just in advance of the meeting of the American Medical Association in New York City. Applicants who have successfully passed the written examination and who plan to take the oral examination in 1940, should inform the office of the Secretary, William S. Middleton, M.D., 1301 University Avenue, Madison, Wisconsin, at least six weeks in advance of the date of the examination they desire to take. The next written examination for 1940 will be given on October 21. Applications must be filed in the Secretary's office by September 1.

* * *

Doctor, Remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medicinal supplies, and service. Here are ten more of the firms which helped make the 1939 Convention such a great success:

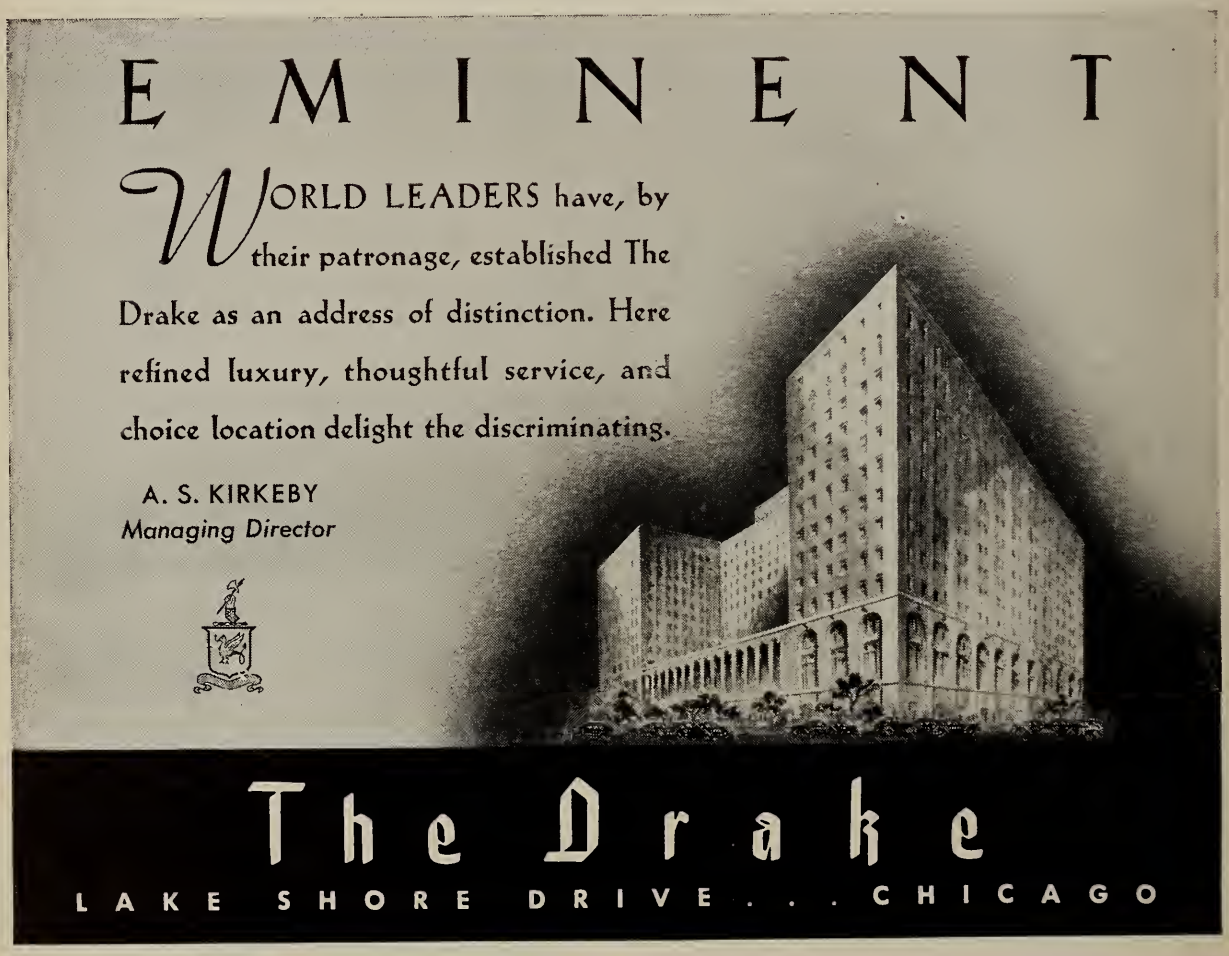
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Medical Protective Company, Wheaton, Illinois
Medical Supply Corporation of Detroit, Detroit, Michigan
The Mennen Company, Newark, New Jersey
Merck & Company, Rahway, New Jersey
Wm. S. Merrell Company, Cincinnati, Ohio
Michigan Magnetic Mineral Water Co., St. Louis, Michigan
Michigan Society for Group Hospitalization

* * *

The Eighth American Scientific Congress will be held in Washington, D. C., on May 10 to 18, 1940. The Congress is composed of eleven sections, namely, Anthropological Sciences, Biological Sciences, Geological Sciences, Agriculture and Conservation, Public Health and Medicine, Physical and Chemical Sciences, Statistics, History and Geography, International Law, Public Law and Jurisprudence, Economics and Sociology and Education. The subjects which will be discussed by the Section on Public Health and Medicine include: Nutrition, Tuberculosis, Cancer, Chemotherapy, Diseases of the Heart, Rehabilitation of Physically Handicapped Children, and Tropical and Other Diseases. The Congress is attended by representatives of all the Republics of the Western Hemisphere. Past Congresses have been held in Buenos Aires, 1898; in Montevideo, 1901; Rio de Janeiro, 1905; Santiago de Chile, 1908; Washington, 1915-16; Lima, 1924-25; and Mexico City, 1935.

* * *

The Michigan Association of Industrial Physicians and Surgeons will hold its annual meeting in Grand



Rapids, Michigan, on April 17, 1940, beginning with luncheon at noon at the Pantlind Hotel.

PROGRAM

1:00 p.m.-5:00 p.m.

"Silicosis—Wisconsin Plan"
ELSTON L. BELKNAP, M.D., Milwaukee, Wisconsin
"Injection Treatment of Hernia"
FREDERICK W. SLOBE, M.D., Chicago, Illinois
"Operative Treatment of Hernia"
CHESTER McVAY, M.D., University of Michigan
"Integration of Industrial Medicine with Hygiene"
KENNETH E. MARKUSON, M.D., Director, Bureau of Industrial Hygiene, Michigan Department of Health
"Nerve Injuries"
E. S. GURDJIAN, M.D., Detroit

5:00 p.m.-6:00 p.m.

Business Session followed by a Social Hour.
Annual Dinner—*6:30 p.m.*
President's Address:
"Low Back Pain"
PAUL MAGNUSON, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago, Illinois

For further information write J. DUANE MILLER, M.D., Secretary, Medical Arts Bldg., Grand Rapids, Michigan.

* * *

Field Representatives in Cancer, Child Welfare, and Maternal Health are sponsored by the Michigan State Medical Society and the State Department of Health. These physicians have been working in various parts of the State. The following counties have been visited recently:

Clifford H. Keene, M.D., Field Representative in Cancer. January 3 to 7, inclusive, Newaygo County; January 8 to 12, inclusive, Gratiot-Isabella-Clare Counties; January 19, Newaygo County Child Health Committee; January 29 to 31, inclusive, St. Joseph County; February 5 to 9, inclusive, Cass County; February 12 to 16, inclusive, Berrien County; February 19 to 23, inclusive, Van Buren County; February 26 to March 1, inclusive, Allegan County; March 4 to 8, inclusive, Branch County; March 11 to 13, inclusive, Kent County; March 14 and 15, Ottawa County; March 18 to 22, inclusive, Huron-Sanilac Counties; March 25 to 29, inclusive, St. Clair County; April 1 to 3, inclusive, American College of Surgeons in Detroit.

Warren E. Wheeler, M.D., Field Representative in Pediatrics. Flint and Genesee Counties, December 4, 1939, to February 10; Ottawa County, February 12 to 16.

Alexander M. Campbell, M.D., Maternal Health Consultant. During the months of January and February, 1940, Doctor Campbell visited Barry, Eaton, Van Buren, Hillsdale, Allegan, Calhoun, and Branch Counties. On April 1, Doctor Campbell will visit Ingham County.

Clair E. Fulsome, M.D., Field Representative in Obstetrics. Week of January 8 in Monroe County, except January 11, when he addressed a group in Lenawee County. Week of January 15 in Tuscola County; week of January 22 in Sanilac County; week of January 29 in St. Clair County; week of February 5 in Macomb County; week of February 12 in Lapeer County; week of February 19 in Clinton County; week of February 26 in Montcalm County; week of March 4 in Gratiot County; week of March 11 in Ionia County; week of March 18 in St. Joseph and Cass Counties; week of March 25 in Clare, Gladwin, Arenac Counties; weeks of April 8 and April 15 in Saginaw County; week of April 22 in Isabella County; week of April 29 in Midland County; and week of May 6 in Mecosta and Osceola Counties.

* * *

ELOISE HOSPITAL POSTGRADUATE CLINIC

A Postgraduate Clinic for General Practitioners will be presented by Eloise Hospital, Psychiatric Division, Wednesday, April 24, 1940.

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that practically 50 per cent of the average doctor's practice involved nervous and mental problems. Realizing this, Eloise Hospital, Psychiatric Division, offers its first Postgraduate Clinic, planned particularly for the general practitioner of medicine.

There will be an avoidance of theoretical discussions and technical terminology, and every attempt will be made to promote a day of practical value to those engaged in general practice.

The whole purpose of this educational venture is to demonstrate to the medical man outside the specialty of Psychiatry that there is much in the field of value to him; that the subject-matter can be presented in such a way as to be easily assimilated, and in a form whereby it will be of practical service to him in the more satisfactory and successful practice of medicine.

No charge will be made. Meals will be arranged at cost. Reservations should be made by April 22. Plan to come for part or all of the day.

The program of the day as arranged by Martin H. Hoffmann, M.D., Clinical Director, and under the supervision of Thomas K. Gruber, M.D., Superintendent, is as follows:

8:30—Registration.
9:30—Welcome and Introduction—Dr. Thomas K. Gruber.
9:15—Therapy of Late Syphilis—Dr. Walter H. Squires.
10:00—The Management of the Nervous Patient—Dr. Roscoe W. Cavell.
11:00—Early Recognition of Mental Illness. (Stressing early symptoms and manifestations of all types.)—Dr. Milton H. Erickson.
12:00—Lunch.
1:30—Movies and Demonstration of Shock Treatment.
2:00—The Physician's Problems with Relatives of Mental Patients—Dr. Louis S. Lipschutz.
3:00—Shock Therapies—Dr. Martin H. Hoffmann.
4:00—Clinical Demonstration of Typical Cases of Mental Illness—Dr. Morris C. Beckwitt.
6:00—Dinner.
7:30—Personality and Emotional Components of Physical Illness—Dr. Henry A. Luce.

* * *

COUNTY MEDICAL SOCIETY MEETINGS

Bay County—February 28—Bay City—Speaker: Daniel P. Foster, M.D., Detroit

Calhoun County—March 6—Battle Creek—Program: Journal Club—R. L. Mustard, M.D., A. A. Humphrey, M.D., and L. E. Verity, M.D., Battle Creek

Dickinson-Iron—February 9—Iron Mountain—David Cleveland, M.D., Milwaukee

Gratiot-Isabella-Clare—February 15—Alma—Speaker: L. Fernald Foster, M.D., Bay City

Ingham County—February 20—Lansing—Speaker: J. A. Johnston, M.D., Detroit

Jackson County—February 20—Jackson—Speaker: F. Janney Smith, M.D., Detroit

Kent County—February 14—Grand Rapids—Speaker: Leon C. Bosch, M.D., Grand Rapids; February 28—Grand Rapids—Speaker: Cameron Haight, M.D., Ann Arbor

Oakland County—March 6—Pine Lake—Speaker: Roy D. McClure, M.D., Detroit

St. Clair County—February 23—Port Huron—Special Meeting—Speakers: Henry R. Carstens, M.D., A. S. Brunk, M.D., Detroit, L. Fernald Foster, M.D., Bay City, Messrs. Wm. J. Burns and J. D. Laux.

Wayne County—March 4—Detroit—Speaker: Madge Thurlow Macklin, M.D., London, Ontario.

March 11, Detroit—Speaker: Julius Hess, M.D., Chicago

March 18, Detroit—Joint Session with Detroit Bar Association

March 25, Detroit—Speaker: Frederick A. Coller, M.D., Ann Arbor.

* * *

New County Society Officers

Houghton-Baraga-Keweenaw

President—C. A. Cooper, M. D., Hancock
President-Elect—A. C. Roche, M.D., Calumet
Secretary-Treasurer—P. S. Sloan, M.D., Trimountain
Delegate—J. R. Kirton, M.D., Calumet
Alternate Delegate—Alfred LaBine, M.D., Houghton

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation of those sending them. A selection will be made for review, as expedient.

CLINICAL ROENTGENOLOGY OF THE ALIMENTARY TRACT. By Jacob Buckstein, M.D., Visiting Roentgenologist (Alimentary Tract Division), Bellevue Hospital, New York City; Consultant in Gastro-Enterology, Central Islip Hospital. With 525 Original Illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price: $10.00.

Buckstein has made use of the enormous clinical material at Bellevue Hospital, New York, to portray and discuss this subject in a very complete form. The selection of illustrations and the reproduction of them are exceptional. Many condensed case reports are used to clarify the subject-matter. The section on "Gastric Ulcer" would make an excellent monograph.

MANUAL OF DERMATOLOGY. By Carroll S. Wright, B.S., M.D., Professor of Dermatology and Syphilology, Temple University School of Medicine; Associate Professor of Dermatology and Syphilology, Graduate School of Medicine, University of Pennsylvania; Fellow of the College of Physicians of Philadelphia; Member of the American Dermatological Association, American Academy of Dermatology, Society for Investigative Dermatology: Consulting Dermatologist, Temple University Hospital, Phialdelphia Municipal Hospital, Shriners' Hospital, Widener Home for Crippled Children, Elwyn Training School, Pennsylvania Institute for the Blind. Philadelphia: The Blakiston Company, 1940. Price: $4.00.

Wright, a former Michigan man, has compiled in a handy volume the latest information on diagnosis and treatment of practically all the skin conditions which the general practitioner might encounter. The

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arrangement and the elimination of non-essential material is to be particularly commended. The use of this book will solve many dermatological problems for the busy physician.

ELMER AND ROSE PHYSICAL DIAGNOSIS. Revised by Harry Walker, M.D., F.A.C.P., Associate Professor of Medicine, Medical College of Virginia, Richmond, Va. With 295 Illustrations. Eighth Edition. St. Louis: The C. V. Mosby Company, 1940. Price: $8.75.

This very useful book, which was first published in 1917, written by Elmer and Rose of St. Louis, has been revised by Harry Walker of Richmond, Virginia, who is Associate Professor of Medicine at the Medical College of Virginia. A striking experiment in using a green-tinted paper, evidently to avoid glare when reading, seems to be a distinct advantage. The book itself has been a popular one for many years and Walker has brought it up to date in all respects and rearranged the chapters to make them conform more to the usual order of physical examination.

SHOCK—BLOOD STUDIES AS A GUIDE TO THERAPY. By John Scudder, M.D., Med. Sc.D., F.A.C.S. From the Surgical Pathology Laboratory of the College of Physicians and Surgeons, Columbia University, and the Department of Surgery, the Presbyterian Hospital, New York City. 55 Illustrations. 5 Plates, three of which are in color. Philadelphia, Montreal, London: J. B. Lippincott Company, 1940. Price: $5.50.

A most comprehensive book on the baffling subject of shock. Practically every factor involved in shock from various causes is completely analyzed and discussed. An outline of various forms of treatment which have been attempted and comments thereon followed by suggestions for better handling of these cases based on blood studies and observations. An excellent reference book of considerable practical value.

THE NEWER NUTRITION IN PEDIATRIC PRACTICE. By I. Newton Kugelmass, B.S., M.A., M.D., Ph.D., Sc.D., Attending Pediatrician, Broad Street Hospital and Heckscher Institute, New York; Consulting Pediatrician, Lynn Memorial Hospital, Monmouth Memorial Hospital and Muhlenberg Hospital, New Jersey. Formerly: Visiting Pediatrician, French Hospital and New York City Children's Hospital; Director Pediatric Research, Fifth Avenue Hospital and Pediatric Research Associate, Yale University. 183 Illustrations. Philadelphia, Montreal, London, J. B. Lippincott Company, 1940. Price $10.00.

In nearly twelve hundred pages the author, whose high scientific standing is accepted throughout the world, has covered every possible phase of nutrition in its relation to the child from birth through adolescence. It is a storehouse of information and excellently arranged for easy reference.

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Psychiatry

in the Service of the Schools*

By Henry C. Schumacher, M.D., LL.D.
Cleveland, Ohio



Henry C. Schumacher, M.D.
M.D., St. Louis University School of Medicine, 1919; LL.D., St. Benedict's College, 1938. Diplomate American Board of Psychiatry and Neurology, 1939; Director Child Guidance Clinic, Cleveland, 1926 to present; Associate in Pediatrics, School of Medicine, Western Reserve University, 1933 to present; Fellow American Psychiatric Association, American Orthopsychiatric Association; member American Association for Advancement of Science, National Conference of Social Work, Phi Beta Pi, and Alpha Omega Alpha.

■ Somatic medicine has been much more extensively cultivated than mental medicine. Great advances have been made in conquering diseases of the body. Preventive medicine has increased the span of life considerably. However, until relatively recently the average physician was not greatly interested in psychiatry and mental hygiene. In the field of mental medicine advance has been slow and prevention is still in its infancy.

Yet man's ideal down the ages has been a sound mind in a sound body. Today we are beginning once again to appreciate a fact, seemingly lost sight of by modern philosophers, that man is a unit organism; not one that can be divided into body *and* mind as separate parts and still have the organism called man. This fact has led many physicians to take an interest in psychiatry, and psycho-somatic medicine is coming to be recognized as the ideal. It is the whole patient, then, that should be the object of study and treatment. Our ideal should be not only to increase the length of life but also the quality of life.

It certainly is not a complete program of medical care which aims at keeping man alive only to have him become a burden to himself and others because of some mental disorder or maladjustment that could have been prevented or treated. Yet statistics show us that one out of twenty-two of our people, or something over 1,000,000 of the boys and girls in our schools today, may be expected to spend some portion of their lives in an institution for the mentally ill. But this number relates only to those who will become psychotic. A far larger number will suffer a psychoneurotic disturbance and even more will lead unhappy, inefficient lives as a result of faulty adjustment to life situations.

Extension of Psychiatry

It is these facts that have caused psychiatrists to broaden the field of psychiatry. Time was when the psychiatrists working in our mental hospitals were far removed from the affairs of the world. Yet in their studies of the life histories of their patients they could not help but be impressed with the ever recurring finding that the maladjustment was not of recent occurrence but could be traced back to a much earlier period in the lives of their patients. It was this fact that led certain of these students of mental disease to leave the well-nigh cloistered walls of the mental hospital and return to the outside world seeking to find through survey and intensive study of young people the source of mental disorder. **The findings of the neuropsychiatric division of the medical corps in the World War strengthened the belief that if progress in the field of mental hygiene was to be made it could best come through the study and treatment of children.** As an end-result of

*Read at the annual meeting, Michigan State Medical Society, Grand Rapids, Michigan, September 22, 1939.

such work, principles might be evolved that in turn would be the basis for child rearing. Though much is still to be learned, nevertheless, much, too, has been learned and is now conditioning the thinking of leaders in many fields of medicine, education and child care in general.

But even before the psychiatrist was turning his attention to a study of the whole personality rather than continuing the emphasis that mental disease was but brain disease there was considerable work being done by child psychologists both in the study of an individual child over a period of time and in the psychological development of children in general. **At the turn of the century—The Century of the Child—Binet brought out a scale for the measurement of intelligence in terms of mental age. Many tests and measurements have since been devised to test and measure not only intelligence but also character and personality. This has been a worthwhile movement and much good has come from it. Harm, too, has been done, primarily because these approaches have been too one-sided in that they have overemphasized the mind at the expense of the body.** Then, too, a few psychologists have invaded the time-honored province of the physician, the treatment of the sick, in which, as psychologists only, they have not the requisite training.

A word here, too, is in order about the work of the social worker and in particular the psychiatric social worker. These latter came into existence because of the need felt by the psychiatrist for an aide capable by training and experience to assist him in unearthing the detailed information concerning the patient's life and environment so important to a full understanding of the case as well as the need for someone to treat as it were the social environment which was contributing to the patient's difficulty. The visiting teacher, generally a person trained in the fields of social work and mental hygiene, serves the school through the gathering of pertinent data bearing on the child's difficulty and in aiding parents, teacher and the child in solving the difficulties presented. Needless to say, the well trained visiting teacher knows her limitations and is only too anxious to refer the child to the physician and psychiatrist when such need exists. Psychology and psychiatric social work, therefore, are to be considered as ancillary professions and they are of great assistance to the physician and psychiatrist who understand the contribution they can make to the elucidation of problem behavior.

Service to the Schools

How then can psychiatry be of service to the schools? First and foremost we would put the contribution psychiatry has made to the prevention of maladjustment. **The behavior and conduct disturbances shown by the very definitely maladjusted had an incipient stage. These early signs were an expression of the individual's attempt to defend himself against the hardships and the thwartings, real or imaginary, that were his lot in his conflict with his environment.** It is possible to show that all people use what have been called defense mechanisms. We all strive for success, for a place in the sun, for security. The methods we use we learned. To be sure, our particular organism may have found it easier, more satisfying, to use one method than another. But a mental struggle in our conflict with life did and does go on. The important question is, how did we solve the conflict? By a direct conscious socially acceptable attack or by compromise or subterfuge, the exact nature of which we ourselves were not conscious? Some of the devices one may have used may be quite effective and some will almost certainly lead to defeat. Among these mechanisms of defense one may list attention-getting devices, memory distortion, projection, rationalization, compensation, day-dreaming or phantasy formation, regression, and so on.

Defense Mechanisms

Let us illustrate these defense mechanisms first with probably the most simple ones of all—attention-getting devices. Here is a school child who has always been the center of the stage at home. Now in school he does not take at all kindly to sharing the attention and interest of the teacher with 20 to 40 other youngsters in his class. So he makes use of all sorts of ways to attract attention to himself. He fidgets, walks about the room, annoys the youngsters sitting in front, back or sides of him. He can't get his lesson—he must have teacher's help. So also with his coat and other wearing apparel at recess time and on leaving school at the end of the school day. You see, there are a hundred and one dif-

ferent ways in which he can retain the center of the stage. True, he may be frustrated time and again but, unless the thwartings are too severely brought to pass, he merely finds other ways through which to attract attention to himself. If too severely dealt with, he may resort to day-dreaming.

But there is another form of this attention mechanism and that is to distract attention from oneself. The object of this device is to be let alone. If the teacher's attention can be directed to others and their shortcomings, the one who uses this scheme can carry on without interference from teacher because she is too busy with other things.

I have mentioned day-dreaming or phantasy formation. Now, to be sure, some day-dreaming is quite constructive. But as a defense mechanism that is usually not the case. Take our illustration above. The attention-seeking child who is not properly dealt with may retire, as it were, from the battle in defeat. But he still has the same needs. Only now he day-dreams his satisfactions and as a result is even more poorly adjusted than he was before since he now escapes the world of reality. **Day-dreaming is all too often evidence of but one thing—a defeated individual who no longer can get satisfactions in social relationships and therefore creates an imaginary world to meet his needs.**

Compensating behavior in the schools often results because of misgrading. The child whose scholastic abilities are poor will wish, nevertheless, to be a somebody. Since he cannot achieve a satisfying place through normal class-room activity he attempts to do so in some other way. He may be able to do it in athletics, let us say, and work out a rather satisfying plan—note the number of football players who achieve campus success. However, his abilities may be limited or he hasn't had proper guidance to find himself and so he may turn to asocial and anti-social activities. Now if frustrated he may attempt to overcome such thwarting through an intensification of his abnormal behavior. But such overcompensatory behavior always leads to further difficulties of one kind or another. Truancy may be a reaction to failure in school. If forced to go to school but without an intelligent adjustment of the child's curriculum to meet his needs some sort of compensatory activity will result. Often it is further delinquent behavior and then, to achieve distinction, more and more serious misconduct results. Now if arrested, convicted and sent to correctional institution such an individual, having lost his standing in both his own eyes and in those whom he had impressed as being a "big-shot," feels defeated and reacts by insisting that he didn't get a fair deal and comes to hate those who were responsible for his arrest and now plans to revenge himself on them.

It would require a volume to discuss all of these defense mechanisms in detail. Suffice it to say that a careful study of the dynamics of behavior will show that symptoms of abnormal conduct and behavior are brought about through the use of one or more of such defense mechanisms.

The Teacher

The teacher who appreciates the meaning of behavior is in a position to do something constructive about it. Behavior understood as to the underlying conflict can be dealt with intelligently. In other words, the teacher knowing the meaning of the symptom can so plan things that the child can win recognition, be successful and secure in a socially acceptable way.

When one bears in mind the numerous problems brought to the class room as a consequence of faulty home training it is easy to understand why a teacher must be a good mental hygienist. By the same token it is well for the schools to remember that this contribution to understanding has come through psychiatry. It is also well to remember that the school administered and run on mental hygiene principles is a great preventorium of mental disturbances and of unhappy and inefficient lives.

Defects and Psychiatry

Psychiatry, therefore, has contributed greatly to the understanding of every child and thus to the prevention of maladjustment. But psychiatry, too, through its emphasis on the whole child, has called attention to the effect of physical impairment on the mental health—personality and conduct—of the child. Let us just briefly glance at the sensory defective child.

The child born with defective vision may not be aware consciously of his defect and in consequence never complain about poor eyesight. He

believes that all children see the world through eyes such as his own. As a result he cannot explain satisfactorily why his parents and teacher find fault with, let us say, his slow progress in reading. School progress for such a child is a slow and painful procedure. **In fact, the child is very likely to react with disgust for school work when the demand upon his vision is beyond easy fulfillment. Social disapproval of his actions and attitudes merely heightens his own conflicts and forces him into compensatory behavior most often of an unacceptable kind.** Poor hearing, a very common finding in school children, causes the child to lag in language development. Frequently such a child shows indistinct articulation and mispronunciation. He may become the butt of jokes and as a result retaliate in ways that cause others to think him "queer" and "not quite right."

My object in calling attention to these matters is simply this: **All too frequently these children are not adequately examined or, because a relatively minor defect is found, it is not thought necessary to carry out remedial work.** Sometimes the statement is made, "Oh, well, he is dull anyhow and why bother to correct his defective vision." In point of fact his seeming dullness may be due, at least in part, to his defective sensory organs. But even more important, just because he is dull is the very reason he should have every possible attention that will make sensory reception easier, for it is the avenue through which one obtains experiential data. These sensory defects play a larger rôle in school life than they do in home life.

Crippled Child

The crippled and deformed child may also attend school. He comes frequently with a vital consciousness of his defectiveness. The psychological reactions to acquired deformities are often even more intense than those that follow congenital deformities. It is not only the physical correction of these deformities and disfigurements that is important but also treatment of the abnormal mental reactions to these inferiorities. **A school system must provide, then, something more than special centers for the physically handicapped child. It must look to their mental health. Cripples are notoriously mentally maladjusted. It must be borne in mind that the significance of an organ inferiority is not dependent upon the actual defect as judged by the physician and teacher but upon its psychological importance in the eyes of the individual himself.**

Backward Child

Psychiatry has been helpful to the schools, too, in regard to the problem of the backward child. Too often this class of youngsters has been thought of as comprising a distinct and isolated group sharply marked off from the normal. Nothing is further from the truth. Above all, they cannot be judged solely on the basis of their intelligence quotient. It is true that as a class they are educationally defective and lack in scholastic capacity and therefore incompetent pupils. **However, as a class they do not lack in social capacity and the majority, once their school days are over, make quite capable citizens.** Their emotional problems and much of their delinquent behavior while school children is the result of the maladjustment to the school and the home which expects good academic attainment from them.

Other Types

Psychiatry also has contributed to an understanding of the problems of the left-handed child, the speech defective child and to the child who has a reading disability. In all these cases it can be shown that it is a combination of causes, innate, physical and mental, operating to the production of the difficulties presented. In the vast majority of cases the crux of the problem is mental rather than physical. Stuttering, for example, is much more likely to occur in a child of poor to only fair motor coördination who is emotional, shy, sensitive and self-conscious. Furthermore, anxiety is ever present and repression is the common defense mechanism employed. So, also, in reading disability there are present emotional factors, in some instances engrafted upon an intellectual inferiority, in other cases upon visual defect. For the psychiatrist, then, it is the entire child that needs to be studied and treated and not just some part or aspect of his total self.

To be sure, psychiatry also has been of service in those cases which have a definite structural basis, for example, chorea minor, encephalitis and epilepsy. The behavior associated with these types of cases can be exceedingly disturbing to

the routine of the classroom. The teacher who does not understand the underlying cause of this behavior can bring about further emotional disturbances, thus accentuating the abnormal state. **It is indeed surprising how many physicians do not fully appreciate the fact that the mental symptoms in these types of cases may far exceed in severity what one might expect from the physical findings.**

Service By Psychiatry

Psychiatry has made its contribution to the schools by calling attention to those symptoms of a physical and mental (emotional) nature which are common indicators of a maladjusted state. But, furthermore, attention has been directed to such organized systems of behavior as have been labeled psychoneurotic, such as neurasthenia, hysteria, obsessions and compulsions, et cetera, and psychotic, such as dementia precox and manic-depression, cases of which begin to occur with increasing frequency in later years of high school. The attention of teachers has also been directed to that group referred to as psychopathic personalities.

Psychiatrists not only have directed attention to the signs of maladjustment in the school child but have pointed out also that the maladjusted teacher is a source of considerable conflict for the school child. Administrative officers of teachers' colleges, as a result, have been paying an increasing amount of attention to the selection of mature personalities as candidates for admission to their institutions. These students, then, are offered training in mental hygiene under competent instruction.

And lastly, psychiatric service is being made ever more readily available through the community and school-system child guidance clinic. Such clinics reach directly the maladjusted child already so sick he is a problem in behavior and indirectly they serve as centers of information, through which a contribution is being made to the well-being of many other children both in a preventive way and in treatment of early cases of maladjustment by the teachers themselves. The findings of these clinics when made available to the proper sources have had much to do with changes in attitudes of teachers to abnormal behavior and methods of correcting it as well as with changes in the curriculum and the establishment of special facilities.

Time did not permit me to go fully into any of the contributions to the schools made by psychiatry. I did, however, indicate several fields in which psychiatry has been of service. **This contribution to the health and welfare of the school child psychiatry makes, first of all, because its outlook is that of medicine, the prevention of disease and the restoration and preservation of health, and secondly, because of its insistence that it is the total child that comes to school and that it is only as this is recognized and acted upon that education is really possible.**

Treatment of Pneumonia

With Sulfapyridine and Specific Serum*

By Maxwell Finland, M.D.
Boston, Massachusetts



Maxwell Finland, M.D.
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The important question from the point of view of the practitioner is: What is the place of serum therapy now that we have available another simple curative agent? In my opinion, a final and complete answer to this question cannot be given with due fairness at the present time. However, one may readily formulate a tentative, practical program which is based upon the general experience to date and which may be expected to yield the greatest benefits of both serum and sulfapyridine and at the same time minimize the disadvantages of each of these agents. It is the background and the practical aspects of such a program that will be discussed in this paper.

*From the Thorndike Memorial Laboratory, Second and Fourth Medical Services (Harvard), Boston City Hospital, and the Department of Medicine, Harvard Medical School, Boston. Read before the seventy-fourth annual convention of the Michigan State Medical Society at Grand Rapids, September 22, 1939.

Specific Serum Therapy

First, let us consider specific serum therapy, its field of proven efficacy, its advantages and its limitations. Antipneumococcic serums are strictly type-specific in their action. Their efficacy in sharply reducing the mortality and in curtailing the course of the acute illness is now established for the pneumonias due to the common Types I, II, V, VII, VIII and XIV. These constitute almost two-thirds of the cases of primary acute lobar pneumonia. The mortality in such cases has been reduced to one-half in all cases and to one-third or less in cases treated within the first four days of illness. Crisis, comparable in all respects to spontaneous crisis, occurs within six to twenty-four hours of the first dose in about 80 per cent of the patients who recover without complications. The brilliant results attained with rabbit serums at the Rockefeller Hospital have now been duplicated in a number of clinics in New York, Pittsburgh, Boston and in many other communities. By itself, specific serum has not proved highly successful in the treatment of severe cases of Type III pneumococcus pneumonia. On the other hand, evidence is gradually accumulating which indicates the efficacy of rabbit therapeutic serums in the treatment of pneumonia due to the higher types, particularly in typical, severe cases with bacteremia.

Failures.—Failures of serum therapy still occur, but they occur only in well-defined categories. These include: (1) patients in whom treatment is undertaken late in the disease, usually after the fifth day, particularly in severe bacteremic cases who already begin to show evidence of peripheral vascular collapse; (2) patients with chronic debilitating disease or elderly persons with advanced degenerative cardiovascular disease; (3) patients in whom purulent complications are already present when treatment is begun; (4) patients who are inadequately treated; and (5) those with mixed infections or with superinfections with organisms against which the highly specific serums are of no avail.

Important Features. —Other important features of specific serum treatment should also be mentioned.

Early clinical diagnosis is essential. Considerable success has been attained in most communities having pneumonia programs in getting the patients to call their physicians early in the illness.

Successful serum treatment requires accurate and rapid typing. This has been facilitated by the direct Neufeld method of typing, which is both simple and reliable and has become universally accepted. Errors with this method in experienced hands are quite rare.

Serums to be effective must be given intravenously, and due precautions must be used to avoid untoward reactions due to sensitivity and to treat such reactions when they occur. This requires acquaintance with the simple methods of intravenous therapy and the recognition and treatment of reactions following parenteral injections of foreign proteins. With the newer serums, reactions due to sensitiveness are quite rare. The experience of various states having pneumonia programs has been that most physicians can apply the methods successfully both in hospitals and in the homes.

Serums are expensive to produce. For this reason, as already mentioned, many states or local governments have relieved the patients' burden by purchasing such serums for them.

Untoward reactions, aside from those due to sensitiveness, still occur. With increasing experience in the production of serums, such untoward reactions have been reduced to a minimum—particularly with the newer rabbit serums. Serum sickness is still frequent, but it is usually mild in character.

One important point to bear in mind in evaluating the position of serum therapy is the fact that the greatest advances in the production and use of such serums have occurred only recently. Adequate data concerning the extent to which the mortality can be reduced with the newer rabbit serums are not yet available. From the few recent reports and from our own experience, deaths from pneumonia in cases properly treated with such serums are rare and occur only in extremely poor risks.

Mode of Action.—It is necessary to consider here the mode of action of specific serum. This will be compared later with the action of sulfapyridine. The action of specific serum is dependent to a large extent upon the natural defenses of the host. The destruction of pneu-

mococci in patients recovering from pneumonia spontaneously is associated with the appearance of type-specific antibodies. These antibodies act on the organisms in such a manner as to make them vulnerable to the action of various phagocytes of the body which then engulf and digest them. For this purpose intact living cells are necessary. Therapeutic serums supply only the necessary antibody, but it is evident that after a long illness, or in old and debilitated individuals, the body defenses may be broken down. Furthermore, while it is possible that the penetration of serums, particularly rabbit serums, into the pleura or other serous cavities (other than the meninges) may prevent the occurrence of complications such as empyema or even abort them if given early in the course of the infection, it should be evident that well-established foci of infection are not influenced by specific serums, except, perhaps, in preventing their spread to uninvolved parts of the body. This failure to cure focal infections is due in part to the fact that most of the cells present in such infected fluids are not active in phagocytosis of virulent bacteria and, even if an adequate number of living cells were active and the environment otherwise suitable, the amounts of antibody which could penetrate into the exudate could hardly be sufficient to neutralize the large amount of antagonistic substances present and still leave a sufficient excess to mediate the necessary phagocytosis. **One important aspect of the action of specific serum may be emphasized. The action of specific serum is comparatively rapid, in contrast to the action of sulfapyridine, which will be mentioned later. In fresh blood, which contains small amounts of specific antibody, the destruction of enormous numbers of virulent pneumococci takes place within a few minutes and is almost complete within two hours.**

Sulfapyridine

Let us now consider sulfapyridine, its field of usefulness, its advantages and its limitations. Because its effectiveness is independent of type and its application relatively simple, a considerably greater body of information concerning the use of this drug has become available since its introduction than could necessarily be forthcoming in the case of specific serums. As Bullowa has recently pointed out in his Beaumont Lecture, very few of the cases in the early reports of this drug were adequately studied or controlled in order to make possible the proper comparisons with the results of specific serum therapy. Low death rates have been reported by almost all observers. The figures which have been offered by most writers for comparisons with their drug-treated cases are, for the most part, of little significance in direct relation to the data presented. Nevertheless, an imposing number of cases have already been presented which have been properly classified according to the most important of the prognostic features; namely, pneumococcus type, age, bacteriemia and extent of pulmonary involvement. The results in this group of cases lend unequivocal support to the efficacy of this agent in the treatment of the pneumococcus pneumonias. At present there is every reason to believe that this drug is effective against all types of pneumococci. Although the mortality rates for cases of Type III pneumococcus pneumonias treated with sulfapyridine are considerably higher than for other types, they are far below the usual death rates. It can hardly be expected that the mortality in this type should be as low as in other common types because of the greater incidence of aged and debilitated individuals afflicted with the Type III infection. Differences in response among patients appear to be related more to the strain than to the type of pneumococcus. In addition, variations occur in the response of individuals for reasons that are not always clear.

Advantages over serum.—Sulfapyridine has certain obvious advantages over serum.

It is simple to administer. Since it is given by mouth, no time or effort on the part of the physician is required in the process. Nevertheless, once untoward symptoms occur, particularly nausea and vomiting, the maintenance of adequate therapy may require considerable skill on the part of both the physician and the nurse.

Since, for practical purposes, it is effective against all types of pneumococci, it can be used without reserve in patients in whom multiple pneumococcus types are found. In general, the relative importance of the various types so found can be readily determined either from the character of the material available and from the re-

sults of the typing as well as from certain basic experience concerning the significance of the different types. Nevertheless, there are cases in which the decision is difficult and it is then a great comfort not to have to be disturbed by the possibility of making the wrong choice or of having to treat the patient for more than one type, as occasionally, though very rarely, happens when type-specific serums are used. Furthermore, the effectiveness of sulfapyridine against hemolytic streptococcal infections is of especial importance, since mixed infections or superinfections with this organism sometimes vitiate the beneficial effects of serum. It might be pointed out, however, that in our experience a number of deaths from hemolytic streptococcal infections have occurred in patients treated with sulfapyridine after the pneumococcal infection had been apparently overcome.

The drug is effective late in the disease and often in debilitated individuals, except, perhaps, under some circumstances, as yet not clearly defined. In this connection, it is important that treatment with sulfapyridine may be started without waiting for the bacteriological results, thus saving valuable time.

Sulfapyridine is inexpensive, particularly when compared with the cost of specific serums, and for obvious reasons can be made much more readily and universally available.

Disadvantages.—As in the case of specific serums, there are certain disadvantages in the use of sulfapyridine. These are associated chiefly with its toxic effects, most of which are now well recognized.

The most frequent toxic symptoms are nausea and vomiting, which occur with varying severity in more than two-thirds of the cases. The vomiting may be severe enough to necessitate discontinuing the drug temporarily or entirely. In some instances the nausea responds to simple procedures, such as intravenous injections of saline and glucose, or the administration of the drug with alkalis or in various liquid or semisolid foods. In most instances all of these methods are of no avail. The nausea or vomiting may start soon after the first dose of the drug, but it more often begins after from 3 to 6 grams have been taken in four to twenty-four hours. In a certain proportion of the cases these symptoms either subside or become less severe after one or two days. Diarrhea has occurred rather infrequently and is usually associated with nausea and vomiting.

There may be evidence of renal irritation of varying severity. Hematuria, renal colic, nitrogen retention and anuria have been observed. Although, in most instances, these symptoms clear spontaneously when the drug is reduced or discontinued and sufficient fluids are given, death may occur from this cause. In fatal cases, crystals of acetyl sulfapyridine and aggregations of such crystals in small stones have been found in the kidney tubules, calyces, pelvis and ureters. In occasional survivors there is a possibility of prolonged or even permanent renal damage. The onset of hematuria and of nitrogen retention may occur after only two to four days of treatment or it may be delayed. They may occur in spite of apparently adequate fluid intake and even in the absence of vomiting.

While there is some evidence from chemical studies that the liver function may be impaired by sulfapyridine treatment, obvious liver damage directly attributable to the drug is not common. It may occur, however, after prolonged treatment with the drug, especially when other toxic effects are present, notably drug fever, rash or anemia. Nausea and vomiting may be contributing factors or may aggravate the condition. Liver damage, like granulocytopenias, have also been noted in patients who have been given a long course of sulfapyridine therapy after having exhibited some toxic effects from previous treatment with the same drug. Patients who have such toxic effects as fever, rash, or anemia from the use of sulfanilamide, however, have been given sulfapyridine soon after the sulfanilamide was discontinued without further ill effects. The converse is also true; patients with toxic effects from sulfapyridine, including agranulocytosis, have subsequently received sulfanilamide uneventfully. Most of the other toxic effects of sulfapyridine are similar to those observed with sulfanilamide but they occur with different frequency.

Anemia of the acute hemolytic type with jaundice, marked leukocytosis and reticulocytosis, either with or without hemoglobinuria, may occur early in the course of treatment. The slowly progressive type of anemia is usually

milder, and both types are less frequent than with sulfanilamide.

Leukopenia is more common. Infrequently it may occur early in the course of treatment, but usually it appears after seven to fourteen days or even longer and may progress rapidly to complete agranulocytosis if the drug is not discontinued promptly. If the drug is stopped in due time, recovery is the rule, but several deaths are recorded. It has been our experience that patients who, before treatment, have leukopenia with a high granulocyte count tolerate the drug well, whereas those with granulocytopenia have gotten into difficulty.

Cyanosis is considerably less frequent and less severe with sulfapyridine than with sulfanilamide. The administration of alkalis is probably not essential with the former except for the purpose of increasing absorption or perhaps for decreasing the possibility of renal irritation.

Drug fever and morbilliform or other eruptions are about as frequent as with sulfanilamide. They are usually the forerunners of other and more severe toxic effects and warrant discontinuing the drug. Administration of drug at a later time in such cases may result in serious and even fatal symptoms. The rashes are usually, but not always, easy to differentiate from those due to serum sickness.

Mental symptoms—either profound depression, which is probably independent of the gastro-intestinal symptoms, or severe excitement and physical activity—may occur during the administration of the drug and may persist for several days after the drug is withdrawn. It is frequently difficult to differentiate these symptoms from the delirium or the toxic psychoses due to the disease itself.

Another disadvantage of this drug is its irregular absorption, excretion and acetylation. This irregularity is not necessarily associated with the gastro-intestinal symptoms or with fluctuations in the fluid intake, although these factors may be important. The dosage most widely and successfully used in adults consists of an initial dose of 2 grams followed by 1 gram every four hours. With this dosage, blood concentrations of free sulfapyridine twelve hours or more after the first dose may vary from less than 1 to more than 15 mg. per 100 c.c. These variations are observed in patients without demonstrable renal damage. While the lower levels have been more common in patients who vomited, particularly when the vomiting occurred immediately after each dose, this was not always the case. Nor has the state of hydration adequately accounted for these wide variations. High proportions of the acetylated form of the drug, which is inactive therapeutically but may increase its toxicity, are common in patients with nitrogen retention or with other evidences of renal damage. They are also more frequent in patients who vomit a good deal. However, these relationships are not constant, nor is it entirely clear which is cause and which is effect.

Effective Dosage

While, in general, levels of 4 mg. or more per 100 c.c. of blood are required for a therapeutic effect, lower levels are frequently effective, especially in mild cases. In many cases, however, no effect on the disease becomes apparent until concentrations of 8 to 10 mg. of the unconcentrated drug are maintained for several hours.

There is evidence accumulating that strains of pneumococci, as they are obtained from patients, vary considerably in their susceptibility to the action of sulfapyridine and some may be relatively resistant. Furthermore, resistance to sulfapyridine action or so-called "fastness" has been induced experimentally by growing organisms continuously in the presence of sulfapyridine. Such "fastness" may apparently be acquired in the course of treatment, both in human cases and in experimental infections. How important this factor may be clinically cannot be determined at present.

Contraindications

In general, the following conditions may be considered relative and sometimes absolute contraindications to the use of sulfapyridine: (1) severe and intractable vomiting; (2) leukopenia associated with granulocytopenia; (3) impaired renal function; (4) impaired liver function; (5) a history of previous administration of sulfapyridine which was accompanied by drug fever, rash, severe anemia or granulocytopenia. It is not unlikely that under such conditions the drug may be given to certain individuals in adequate amounts to bring about a therapeutic response without serious or irreparable damage. If the therapy needs to be continued, however, it may prove dangerous.

Mode of Action

The mode of action of sulfapyridine is radically different from that of specific serums. We are not concerned here with the controversial subject of the exact physical or chemical mechanism through which sulfapyridine exerts its action on bacteria. Practically all workers are agreed that the drug exerts a high degree of bacteriostatic and considerable bactericidal action on pneumococci of all types. **As already noted, there are considerable variations in susceptibility of different strains to this action of the drug. It may occur without the mediation of the host defenses, since it takes place in artificial media as well as in fresh blood. Phagocytosis is not influenced directly, although an increase of phagocytosis may be observed after the organisms themselves have been affected through the action of the drug. The extent of the bacteriostatic and bactericidal action of the drug is directly proportional to its concentration and inversely proportional to the density of the culture in which it acts.**

Two important aspects of the action of sulfapyridine may be emphasized since they have a direct bearing on the main problem with which we are concerned. These are, first, the time factor in the action of the drug and, second, the action of antibody in the presence of sulfapyridine.

Time Factor.—It has already been mentioned that specific antibody exerts its bactericidal action very rapidly and is usually completed within two hours in the presence of fresh blood containing an adequate number of active leukocytes. The action of sulfapyridine, on the other hand, necessitates a definite lag period during which multiplication of bacteria must occur. In other words, the bacteria must grow in the presence of sulfapyridine before the bactericidal or bacteriostatic effect is exerted. The extent of the bactericidal action is then conditioned by the number of bacteria found after this growth phase. While the factors arising out of this growth which may be responsible for the characteristic drug effect are quite controversial, the necessity for growth to take place is generally recognized. This is not entirely a theoretical consideration. We have observed patients in whom bacteriemia either appeared for the first time or increased definitely a few hours after treatment with sulfapyridine was begun.

Sulfapyridine and Antibody.—When specific antibody is present along with sulfapyridine in fresh blood containing active leukocytes, the activity of both comes into play: the rapid destruction of large numbers of organisms through opsonization followed by the bacteriostatic and bactericidal action of the drug. Since the great bulk of the organisms are removed through the immune mechanism, the number of organisms left for the action of sulfapyridine is decidedly reduced and a greater bactericidal effect may result. Furthermore, the desired effect may be brought about by concentrations of both serum and drug which are smaller than those required when each of these agents is used separately. This effect has been substantiated by the therapeutic experiments of a number of workers. It has also been found to hold true in animals for Type III infections which are relatively resistant to treatment with serum alone or with moderate doses of sulfapyridine alone.

Bacteriological and immunological studies of patients under treatment with sulfapyridine alone or in combination with serum have more or less substantiated these findings. **Sulfapyridine given alone in adequate amounts over a long enough period may bring about a complete bacteriological cure so that the inciting pneumococcus can no longer be recovered from the sputum. Even in patients, who for various reasons die after adequate and prolonged drug therapy, pneumococci often cannot be found in the lung. However, focal infections other than meningitis are not usually affected by the drug.** At least, these foci remain infected and the numbers of living bacteria in the exudate do not drop significantly following ordinary oral therapy. The same is true for endocarditis. The speed of recovery from pneumonia is considerably hastened in most cases, particularly in those with severe bacteriemia, when the combination of drug and serum is used.

Exceptions.—There are possible exceptions, among which certain bacteriemic Type III cases may be mentioned. Our recent experiences with therapeutic rabbit serums for this type have indi-

cated that favorable effects may be expected from their use in patients who do not have blood stream invasion at the time treatment is begun. In such cases the combination of drug and serum, whether begun simultaneously or in sequence, has been especially effective. In bacteriemic patients, on the other hand, if treatment is begun with the administration of serum, most patients do not respond well and some even appear to get worse rapidly. In such cases, even with heavy blood stream invasion, it is felt that if sulfapyridine in adequate amounts is given for eight to twelve hours or even longer, and this is followed by specific antibody, a more favorable response could be attained. Experiences of this sort, however, are still limited but there is a good immunological basis for the belief that this method should be advantageous in such cases.

The Optimum Beneficial Effects

In view of what has been said, what general program can we adopt to obtain the optimum beneficial effects of both serum and sulfapyridine with a minimum of their disadvantages? **Because in any given case various eventualities may arise which would make it desirable or necessary to use specific serums, it is essential that sputum should be obtained for typing and blood taken for culture as soon as a clinical diagnosis is made. This is important since the etiological diagnosis may become increasingly difficult to determine after treatment with sulfapyridine.** Unless some condition is present for which it is either contraindicated or undesirable, treatment with sulfapyridine may be started forthwith. In most cases treatment with the drug may be continued for eighteen to twenty-four hours, after which time, if the patient has not shown evidence of definite clinical improvement or if there is excessive nausea or vomiting, one should give specific serum for any type of pneumococcus that grows out in the blood culture or for any of the common types obtained from the sputum. In all severely ill Type III cases it may be advantageous to begin serum treatments eight to twelve hours after the first dose of sulfapyridine. In those cases which are known to have a poor prognosis, namely, bacteriemic patients, those with multiple lobes of the lung involved, patients over forty years of age, pregnant or recent parturient women, serum should supplement sulfapyridine and may advantageously be given as soon as the type is determined.

Every patient who is to receive sulfapyridine should have a hemoglobin determination, leukocyte and differential blood count, a urine examination and preferably also blood nonprotein nitrogen or urea nitrogen determination before or as soon as possible after treatment with this drug is begun. These should be repeated at two- or three-day intervals if indicated, provided it is necessary to continue with the use of the drug. It is to be kept in mind that the severe anemias, and occasionally leukopenias, may occur in the first two or three days, that most leukopenias and anemias occur after the first week of therapy and that renal irritation may occur at any time after the first day.

Serum Alone.—The following conditions may be considered as indications for treatment with serum alone, and sulfapyridine should either be avoided or be used with extra caution and in combination with serum whenever feasible: (1) severe anemia; (2) granulocytopenia; (3) known or suspected liver damage; (4) known or suspected impairment of kidney function; (5) a previous history of treatment with sulfapyridine if toxic effects resulted.

Sulpfapyridine Alone.—Serum should not be given to patients with acute cardiac failure or peripheral vascular collapse until these conditions have shown evidences of definite improvement with appropriate treatment, and then only after sulfapyridine has been given for several hours. Serum is best avoided in asthmatic patients or in patients with specific sensitiveness to the particular serum available, but may be used with due caution after a trial of eighteen to twenty-four hours of sulfapyridine therapy has failed to indicate a favorable response. Sulfapyridine should be used in these cases as soon as pneumonia is diagnosed.

Mode of Treatment.—It is not certain how long it is desirable to continue treatment with sulfapyridine. In some cases treated with sulfapyridine alone it may be necessary to continue the treatment for five days or even longer after the temperature and pulse rate have reached normal, and even then relapses of the pulmonary

infection may follow. In patients who have circulating specific antibodies or who have received such antibodies in treatment, it is safe to stop therapy twenty-four hours after the temperature has reached normal unless (1) there is a complicating hemolytic streptococcal infection or (2) there is a mixed infection with another type of pneumococcus against which the serum treatment was not directed. It is obviously advantageous in patients with marked nausea and vomiting to give serum and thus avoid the prospect of the prolonged use of the drug.

It is desirable to maintain concentrations of 4 mg. or more of free sulfapyridine per 100 c.c. of blood. If the response to the usual dose is inadequate, or if untoward effects are noted, it is desirable to determine the concentration of the drug in the blood and increase the dose if an adequate level is not obtained. In the latter instances, it is desirable also to know the amount of both the free and the acetylated forms of the chemical that are circulating. There is probably no advantage in "tapering off" the dose after a complete response has been obtained and the drug has been given for two or three days thereafter.

It is felt that, with the regime outlined, the best interests of the patient are served and the greatest advantage is taken of the known facts concerning both serotherapy and chemotherapy in the pneumococcus pneumonias. As more data become available, these recommendations may require revision.

NATIONAL PHYSICIANS COMMITTEE

On November 18, 1939, an organization called the "National Physicians Committee" was formally established *as a Trust.*| The Executive Board was made up of men prominent in American medicine, who have been leaders in the fight to maintain ethical and scientific standards and extend medical service to all the people. The Committee advocates the continuance of individual private medical practice and the preservation and extension of our hospital system. It believes in the centralization of health service of the Federal and State governments and the determination of health requirements on the basis of locally gathered and locally interpreted data. From this is derived the logical conclusion that the control and disbursement of public health funds should be by adminirators locally appointed and locally elected. The Committee is in urgent need of support, both moral and financial, by the medical profession. Information regarding this Committee can be obtained by addressing an inquiry to 700 North Michigan Avenue, Chicago, Ill.

Sickness Disability

Among Wage Earners*

By McIver Woody, M.D.
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■ Reliable figures from certain plants where accident prevention is emphasized and surgical treatment most successful show that 98 per cent of the cases which involve loss of time from work are non-compensable, and 96 per cent of the days lost are due to causes that have no relation to the man's job.

Therefore, industrial physicians have been forced to give more attention to the prevention and control of sickness within the plant. Of course, it is true that there is a limit to what they can accomplish in this direction, because, now that the forty-hour week has been adopted, employees are spending less than a fourth of their time in the plant. If any success is to attend the efforts of the industrial physician, he must arouse interest in this problem among the medical profession at large.

Public health men are already aware of the situation but the final solution of this problem is in the hands of the employee's family physician.

These figures should be of real interest to the profession at large because after all there is no sharp line of distinction between the plant physician and the doctor in private practice. Many physicians do both types of work; this is necessarily the case because the great majority of plants in this country employ less than 500 men. When one stops to consider that a plant must employ at least a thousand men to justify the presence of a plant physician on full time, it becomes evident that a large proportion of indus-

*From a paper read at the annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 21, 1939.

trial work must be done by doctors who do not limit themselves to this type of practice. I might add that this would seem to apply particularly to the medical profession here in Michigan, where for some years there has been a tendency for the large automobile manufacturers to establish small plants at various locations throughout the state. If this tendency to decentralization brings about a transfer of manufacturing operations to rural surroundings, it will necessarily result in a greater interest in industrial medicine among a large propertion of the membership of your society.

We live in a changing world and the signs of change are all about us. A generation ago, your state, like my native state of Kentucky, was largely agricultural, and, aside from one or two large cities where life moved at a faster pace, the tempo of existence was calm and unhurried. The weather was an important topic of conversation. There was plenty of time for lifelong friendships, and each household had its family physician to whom it could turn in time of trouble for treatment or advice as the case might be.

Of course, we would not bring back those days if we could. Times have changed. But it is only the externals that are different. The fundamentals are unchanging. The healing art is still the noblest of the professions. The doctor, whether he is in industrial or private practice, still does his best for his patients. He can still sometimes cure, often relieve, and always comfort. In other words, the warfare against disease and death must go on. The strategy is still the same; it is the tactics that have changed with our increasing knowledge. How can we adapt the folkways of our profession to new conditions, and yet hold fast to that which is true and worthy?

In times such as these, it is important that we preserve a proper sense of values and take what comfort we can in the thought that victory will come in the end to the nation whose economic system is most efficient in the long run. The loss of a $10,000,000 warship is impressive to be sure, but some authorities claim that here in this country three times that amount, or $30,000,000 a day, is lost through illness and accident, and that a large proportion of this loss falls on the wage earner and his employer. The solution of this problem is squarely up to the medical profession of this country. It is up to us to make our way of living more truly efficient and thus steadily decrease the loss of time and money in industry.

Physical well-being is of real importance to wage earners. If an accident happens while the man is at work, he is fairly well protected in most states of the union. His pay goes on until he is able to return to work, and his employer furnishes medical treatment, or at least pays the bill if the man has his own physician. But many of these wage earners have no family physician to turn to. Some of them are recent arrivals in the community, others have never been wise enough to choose one doctor and stick to him, and still others, like their betters, are prone to seek after strange cults. For these same reasons, disability from sickness is always a serious threat to the workman and those dependent on him. When the wage earner is incapacitated by sickness, his pay stops, unless he belongs to some society or association that pays benefits under such circumtances; and his family has to go without unless there is some outside source of income. Even if he recovers sufficiently to resume work, he may not be as strong physically as before, and sometimes after a long illness his whole outlook on life may have changed for the worse. For all these reasons, disability, even though it be temporary, is a very real hazard in the industrial world, and it takes a heavy toll year by year, as we all know.

For instance, last year, out of a group of nearly 19,000 men, where there were four deaths from industrial injury, there were eighty-seven from other causes. That is to say, for every employee who died as a result of an injury received while at work, there were twenty-two who died because of an outside accident or from ordinary sickness. But this comparison does not tell the whole story, as it takes no account of the vast majority of instances in which the wage-earner recovers after being disabled for a time.

In the same group, last year, nearly 4,600 days of disability resulted from industrial injury, out of a total of 110,000 from all causes. In other words each employee was disabled between five and six days during the year. Here again the comparison between industrial and non-industrial cases shows that for every day of disability as a result of an industrial injury

there were twenty-three days of disability from other causes.

One must admit that industrial injuries are sometimes quite serious, and that on the average an injured man stays out twice as long as one who is sick. Nevertheless, we must not lose sight of the fact that the injured man is paid while he is out, but that the sick man is not, unless, as said before, he is fortunate enough to get sick benefits.

A third basis of comparison and one which should be of particular interest to medical men, is that of frequency. By which is meant, the number of cases that result in loss of time per thousand men per year. During 1938, in this same group of 19,000, the frequency of industrial injuries was 7.55 out of a total frequency of a little over 430. In other words for every man who lost time because of an industrial injury, there were fifty-six who were disabled from other causes.

Now if sickness and outside accident are twenty-two times more important than industrial injuries from the standpoint of death-rates, twenty-three times as important from the standpoint of days lost, and fifty-six times as important from the standpoint of the number of cases of disability, it should be of some interest to analyze the sickness cases by cause.

As might be expected, respiratory diseases come first. This group of diseases is responsible for 48 per cent of the cases and 30 per cent of the days lost because of sickness. In second place, stand the diseases of the digestive system, which are responsible for 21 per cent of the cases and 27 per cent of the days lost. Respiratory and digestive diseases, together, are responsible for almost two-thirds of the sickness disabilities among wage earners. The remaining third is not due to any particular group of diseases, but there are three which have about the same frequency: general diseases (excluding influenza); diseases of the musculo-skeletal system; and diseases of the skin.

Let us consider what the physician, working in the factory or plant, can do to prevent loss of time from work by wage-earners. **Frankly, no industrial man can any longer hope for spectacular results along this line so far as industrial injuries are concerned. They will ever be the primary concern of the industrial physician and they will demand continued vigilance on his part, but we must admit that their incidence has already been reduced almost to the vanishing point, at least in the better managed plants, where they represent only about 2 per cent of the cases losing time and only around 4 per cent of the days lost. In my opinion the time has now come for the conscientious industrial physician to devote more time to the other 98 per cent of the cases that are due to sickness and that are responsible for 96 per cent of the days lost.**

Preëmployment Examinations

No doubt much can be accomplished by more careful and painstaking preëmployment examinations. Please bear in mind that these considerations apply to the small plant as well as the large one. **Certainly preëmployment examinations give the employer some assurance that so far as general physical condition is concerned his working force will represent a fair to good cross-section of the community in which the plant is located. Without some kind of preëmployment examination it would soon become impossible for him to hold the accident rate within bounds because any examination of this sort must single out applicants for employment who are handicapped by serious defects of sight or hearing, or who have a preëxisting hernia.** But one must admit that none of these conditions are frequent and continued causes of loss of time from work. If the preëmployment examination is to be of any help in controlling sickness in the plant it must include a careful examination of the internal organs, especially the heart and lungs.

Periodical reëxaminations of old employees are most helpful in preventing sickness disability. They bring to light conditions more or less serious of which the old employee may be blissfully unaware. And if he is properly approached he is usually quite willing to take the matter up with his family physician.

Of course, there are limits to what any physician can accomplish inside a plant or factory, especially if it is a small one where he is only able to spend a few hours a week. However, his task will be much easier and his results far more satisfying if he is able to earn the respect and confidence of every man in the plant. In this respect the preëmployment examination is most important, because it is the prospective employee's first contact with the medical depart-

ment. After a day laborer, along with other men seeking work, has coughed his way through many a dingy examination room, he may be somewhat surprised to find himself in a clean, well-lighted office where he is examined in decent privacy by a company doctor, who evidently has time to tell him whether he is in good physical condition; and if he is not, just why, and what he ought to do about it. Let us not forget that first impressions are lasting and that if the plant physician is to expect the employee to think of him as a true doctor he must lay the foundations for trust and respect at the very first interview.

Skillful handling of these border-line cases is the key to success in preventing loss of time from work. Here, if anywhere, the doctor can reduce the amount of sickness disability. Common respiratory diseases and minor digestive upsets are responsible, as we have seen, for two-thirds of the illness in industry. And yet, how often does the wage earner consult his family physician of his own accord for such "trivial ailments"? Like as not, he thinks nothing of them, or, at most, stops at the corner drug store on his way home for something to make him feel better; unless, because of long years of friendship with the plant physician, he has come to realize what modern medical skill can accomplish in keeping him well and on the job. Actually, if the truth were known, some wage-earners are prone to judge the whole medical profession by the man who happens to represent it within the plant in which they work. Therefore, the higher regard they have for the plant physician the more likely they are to select a good family physician and stick to him.

Summary

We can study the incidence of ordinary sickness by collecting data on the number of cases that occur and the length of time each man is disabled. Once we obtain frequency rates and severity rates that are significant we will be in a position to compare one industry with another, one plant with the next and one occupation with all the rest. In this direction a great deal remains to be done. But a beginning has been made, and it seems altogether likely that industry, with the proper medical support, will be able to reduce the enormous amount of time and money now lost by wage-earners because of sickness.

Hyperthyroidism

Treatment*

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Preoperative Management

The complications of hyperthyroidism (thyroid crisis, cardiac decompensation, et cetera) which are so difficult to treat are relatively easy to avoid in the majority of cases. The complications that are likely to arise must be anticipated and treated prophylactically before they develop. To accomplish this, it is important to appreciate fully the factors that influence the risk of thyroidectomy. These are: (1) The condition of the heart, (2) the age of the patient, (3) the response of the pulse curve to preoperative treatment, and (4) the degree of extension of the goiter into the thorax.

Of less importance are the presence of a rapid pulse rate at the time of the patient's entry to the hospital, a history of marked loss of weight, or the finding of a high basal metabolic rate. Except in special instances, the prognosis is not materially altered by the duration of the disease.

Diet.—When a patient with hyperthyroidism has a basal metabolic rate of plus 100 per cent, the basal caloric requirement is increased by 100 per cent over the requirement of a person of equal weight with a normal metabolism. When a sufficient caloric intake is not provided, such a patient must find fuel for the demands of metabolism and in so doing will literally burn herself up. The glycogen content of the liver is depleted, fat rapidly disappears, and weight is lost with amazing rapidity.

Unless a concentrated high caloric diet is given, it is often impossible for a patient with a high basal metabolic rate to eat the bulk of food necessary to maintain weight. The diet should contain large amounts of carbohydrate in order to replenish the depleted glycogen reserves of the liver. In addition, since the serum

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Part I covering Diagnosis of Hyperthyroidism appeared in the April issue, page 263.

proteins tend to be lowered in severe hyperthyroidism, the diet should be relatively high in protein. The importance of diet in the preoperative treatment of patients with severe hyperthyroidism can scarcely be overemphasized. States of mental confusion may follow restrictions of diet and we have seen one instance of a mild thyroid crisis which developed following dietary restrictions.

Sedation.—Sedatives are valuable during the preoperative period and experience has shown us that bromides and codeine are of more value than barbiturates in patients with hyperthyroidism. Occasionally, especially in older patients or in cases of extreme hyperthyroidism, barbiturates will excite the patient or may even precipitate a maniacal state. Barbiturates and bromides are contraindicated in the presence of mental confusion because, occasionally, the delirium is the result of the prolonged use of these drugs before the patient was admitted to the hospital.

Iodine.—Iodine, as shown by Plummer,[5] brings about a striking effect in the control of hyperthyroidism and should be given before operation is undertaken in cases of hyperthyroidism associated with any type of goiter, either nodular or diffuse.

Digitalis.—Before operation, full doses of digitalis are given where there is evidence of cardiac decompensation, auricular fibrillation, and valvular or myocardial heart disease. In addition, digitalis is given to a large proportion of the elderly patients with vascular disease of the type in whom we know that the incidence of postoperative auricular fibrillation is relatively high.

Time of Operation.—The preoperative routine is continued until the falling pulse curve flattens out and until it does not appear that the pulse rate will fall any lower. Although the fall in the basal metabolic rate usually parallels the pulse curve, it must be remembered that the former is merely a laboratory procedure as compared to the pulse rate, which is a sound clinical criterion representing the response of the organism as a whole to changes in the severity of the hyperthyroidism. It is this response of the pulse curve and not merely the basal metabolic rate that affords the best clinical index of a remission of hyperthyroidism. When the pulse curve has fallen nearly to the base line, when the weight curve shows a consistent rise, and when the clinical appearance of the patient indicates that as much emotional stability as can be expected has developed, the time for operation has arrived. Even if the basal metabolic rate is high, the patient is in as good a condition for operation as she will ever be.

Anesthesia

In elderly patients, pneumonia is the commonest cause of death after thyroidectomy. General anesthetics tend to depress respiration, to abolish the cough reflex, and to act as a protoplasmic depressant lowering the patient's resistance to intercurrent infection, notably pneumonia. In the aged, the depression incident to a basal or general anesthesia may be the deciding factor as to whether or not a fatal pneumonia will develop. Therefore, in the majority of patients over forty-five years of age, no basal anesthetic is given and the operation is performed under local anesthesia supplemented with nitrous oxide analgesia.

In a strong young individual, the margin of safety is so great that the depression induced by a basal anesthesia can be disregarded; yet even in younger patients profound narcosis is undesirable, whether it be induced by inhalation anesthesia or by any of the various drugs used as basal anesthetics.

Patients in the younger age groups are not susceptible to postoperative pneumonia. In these cases, the greatest danger is from thyroid crisis and the sedation afforded by a basal anesthetic of sufficient depth to afford amnesia without excessive depression is extremely valuable. Basal anesthesia is of especial value in the cases of foreigners who do not understand English and whom it is impossible to reassure or distract by conversation during the operation. Younger patients tend to be less coöperative than elderly patients. Any patient who has been persistently uncoöperative during the preoperative period is apt to be an unsuitable subject for local anesthesia. With experience, one can usually make a fairly accurate prognosis of how the patient will behave during the operation and when it is thought that coöperation sufficient to tolerate a thyroidectomy under local anesthesia with gas

oxygen analgesia cannot be secured, it is usually advisable to consider the administration of some basal anesthetic agent. For a number of years we have used small doses of avertin (60 to 70 mg. per kilogram of body weight) in younger patients and have found that it is both effective and safe, and that a satisfactory analgesia results in the majority of cases. The patients find that the induction of this type of anesthesia is pleasant and, despite the fact that they will talk and respond, there is almost complete amnesia.

A patient with a low or with a normal basal metabolic rate will be analgesic (although generally not completely unconscious) after the administration of avertin in a dosage of 50 to 60 milligrams per kilogram of body weight, whereas a patient with a basal metabolic rate of plus 40 per cent will require 70 milligrams per kilogram for a similar effect and patients with higher metabolic rates may require even larger doses. If a middle ground is to be reached between absence of analgesic effect on the one hand and undue depression on the other, the amount of anesthetic to be given should be varied in accordance with the basal metabolic rate. In our experience, it has been possible to obtain this middle ground of analgesia in 94 per cent of the patients receiving basal anesthetics. In this group, the patients had no unpleasant recollections of the operation and yet were able to talk throughout the procedure.

Postoperative Treatment

The postoperative thyroid reaction is directly or indirectly responsible for the majority of deaths following operations for hyperthyroidism. A postoperative routine designed to minimize the thyroid reaction should therefore be established and applied to every bad risk case.

In recent years we have recognized an unclassifiable type of fatality in which an old and feeble patient appears to "fade away" as though from a profound metabolic exhaustion. We believe that this "metabolic exhaustion" is a modification of the thyroid reaction dependent on the inability of feeble and aged patients to muster sufficient reserves of strength to give the appearance of thyroid stimulation or even to produce a marked elevation of the temperature. Although a classical thyroid crisis is now rarely seen, it is clear that thyroid reactions of lesser intensity predispose not only to the reaction just described but also to cardiac failure and to pneumonia.

Administration of Iodine After Operation.—Although small amounts of iodine should always be continued for at least two days after operation, we never have believed that the postoperative use of large doses of iodine exerted any striking effect on the thyroid reaction of a patient who before operation had received full doses of iodine.

Blood Transfusion.—If anemia is present, the heart is handicapped during the thyroid reaction by the inability of the blood to carry its full quota of oxygen. Although it is often inadvisable to give a transfusion during the height of a thyroid crisis when the slightest reaction to transfusion would tend to elevate a temperature that is already dangerously high, a blood transfusion given *immediately* after operation is a valuable therapeutic measure in the treatment of patients with severe hyperthyroidism or in aged and debilitated patients.

Oxygen Tent.—For the past seven years it has been our practice to place all bad risk patients in the oxygen tent immediately after operation. The oxygen tent is not used for pulmonary complications only, but has been found effective in the treatment of cardiac failure and uncomplicated thyroid crises. We have repeatedly observed a fall in temperature of from 1 to 3 degrees within three hours after the patient is placed in an oxygen tent.

Sedation.—Morphia is the most valuable drug for the control of discomfort and restlessness during convelescence from thyroidectomy. The tolerance to morphia varies in direct proportion to the degree of elevation of the basal metabolic rate. Patients with high basal metabolic rates, especially when in the height of a thyroid crisis, should be given large doses of morphia (up to ½ grain) at frequent intervals.

Continuous Intravenous Glucose.—Patients with severe hyperthyroidism have exhausted the reserves of glycogen that are normally present in the liver.[2] The increased metabolism demands fuel for oxidation. After operation, it is painful to swallow, nausea and vomiting are frequently present, and the patient takes little

fluid or nourishment. Thus, at the time when the caloric demand is highest, when the patient's liver is depleted of glycogen, and when large amounts of fluid are required for perspiration and defervescence, neither food nor fluid is being taken by mouth. Unless an adequate caloric intake is promptly restored, the organism must literally oxidize itself in order to provide fuel for the raging metabolism and, unless the fluid intake is adequate, the water supplies of the body will be quickly consumed in excessive perspiration. In patients with severe hyperthyroidism the continuous administration of glucose solution into a vein will prevent this crisis of catabolic processes and minimize the postoperative elevation of pulse rate and temperature.

Individualization of Postoperative Treatment

If the best results are to be obtained, the relative susceptibility of each patient to the common complications must be recognized and treatment instituted to avert the complication to which the individual is most susceptible.

Patients with Severe Hyperthyroidism.—In the younger patients who have a flat pulse curve, an excessively high basal metabolic rate, or in those who have had a psychosis, the greatest danger is from thyroid crisis and our therapeutic measures against thyroid crisis, including blood transfusion, continuous intravenous drip of glucose solution, the oxygen tent, and morphine in doses sufficient to insure comfort and rest, should be used *immediately following the operation.* Patients with severe hyperthyroidism[1] lose enormous quantities of water through the skin and it is advisable to give each day from 4,000 to 6,000 c.c. of 10 per cent glucose solution until the patient is eating and drinking well. In this group of cases, especially if the patient is relatively young and otherwise in good condition, a basal anesthesia of avertin is of definite value in controlling the overactive emotional mechanism and minimizing the postoperative reaction.

A thyroid crisis is a vicious circle of hyperthermia and hypermetabolism in which each Fahrenheit degree of elevation of the temperature results in a 7.2 per cent increase in the metabolism and in the production of heat. Unless the mechanism for the disperson of heat is accelerated, a further rise of body temperature will ensue. Adequate intake of fluid must be supplied so that the patient will have enough fluid to perspire and cool the body. The ice-cooled oxygen tent will usually control any tendency to hyperthermia. If, in spite of these measures, the temperature should continue to rise, 10 grains of aspirin will usually result in a defervescence of from 1 to 3 degrees in two hours. The ice pack has been used in emergencies to defervesce patients with hyperthermia, but the above measures are more physiological and are usually more effective.

Hyperthyroidism in Old Age.—The management of the aged patient in whom pneumonia is the greatest hazard is quite different. We have seen that sedation and avoidance of psychic disturbances are fundamental principles in the management of severe hyperthyroidism in the young adult, but in the aged and also in patients with intrathoracic goiter, we must avoid depression of the respiration, of the cough reflex, or of the internal metabolism of the body because of the danger of inducing a terminal pneumonia. Depressant drugs are tolerated well in the young, but easily force the aged below the threshold of resistance to pneumonia. Blood transfusion, the oxygen tent, and every resource at our disposal must be utilized to build up the resistance of aged patients.

In the aged it is better to perform the operation under local anesthesia with a minimum of nitrous oxide analgesia. Similarly, the postoperative use of morphine should be limited to the minimum requirements.

In the aged, the principle of the multiple stage operation should be followed and a course of roentgen therapy should be given to the thyroid if there is any question in the mind of the surgeon as to the ability of the patient to withstand a hemi-thyroidectomy. Ice bags should be applied only when absolutely necessary so that chilling with its attendant liability to pulmonary complications may be avoided.

Hyperthyroidism with Cardiac Complications.—Preoperative digitalization, as has been mentioned previously, is of value in those patients who show evidence of severe myocarditis or who have auricular fibrillation or cardiac decompensation. Oxygen therapy is of value in the presence of cardiac complications, as is morphine in doses adequate to insure rest. In this way, the

failing myocardium is strengthened by the digitalis, the efficiency of the oxygen-distributing function of the heart is increased by the oxygen tent, and the metabolic demands of the organism as a whole are decreased by the morphine to the point where a balance between oxygen supply and demand is struck and cardiac compensation is restored.

Blood transfusion is contraindicated in the presence of acute cardiac decompensation and the intravenous administration of fluids should not exceed 3,000 c.c. per day given by the continuous drip method.

Summary

1. The importance of diet in the preoperative preparation of patients with hyperthyroidism is emphasized.

2. The necessity of individualizing the operative and postoperative treatment of every patient with hyperthyroidism is shown.

3. In elderly patients the operation should be performed under local anesthesia. Care must be taken postoperatively to avoid excessive sedation.

4. In younger patients with high basal metabolic rates basal anesthesia is of definite advantage. Postoperatively, the thyroid reaction should be controlled by heavy sedation and by the administration of large amounts of glucose solution intravenously by the continuous drip method.

5. In patients with cardiac decompensation, fluids should be limited somewhat and sedation sufficient to insure quiet relaxation should be given.

References

1. Coller, F. A., and Maddock, W. G.: Water balance in patients with hyperthyroidism. West. Jour. Surg., 41:438-452, (August) 1933.
2. Frazier, C. H.: Carbohydrate metabolism in relation to postoperative crisis. Tr. Am. Assn. Study Goiter, 83089, 1931.
3. Plummer, W. A.: Iodine in the treatment of goiter. N. Clin. North America, 8:1145-1151, (January) 1925.

TREATMENT OF GONORRHEA

The suggested treatment outline for gonorrhea in clinic practice has been mimeographed for distribution as follows:

1. Sulphanilamide (for all types) try first.
2. If sulphanilamide fails or there is need for additional therapy, irrigations and/or hand injections.

ANTERIOR URETHRITIS

(Treatment Confined to Anterior Urethra)

3. For irrigations use 1-800 potassium permanganate daily when possible—irrigator 2½ feet (never higher) above the urethral level. Average urethral capacity is 6-10 c.c.; inject 6 c.c., drain, inject 6 c.c. Repeat several times.

4. For hand injections use 1-3000 potassium permanganate daily. Use ⅛ ounce urethral syringe (asepto) using not more than 6 c.c. of solution. Retained 5-10 minutes.

5. Patients should be instructed to urinate before irrigation or injection in order to cleanse the urethra and for the physician to examine urine by the two-glass test.

ACUTE POSTERIOR URETHRITIS

6. Irrigations and hand injections may be continued but confined only to anterior urethra.

7. Reduce fluid intake.

8. Use oral medication for vesical comfort—tr. hyoscyamus 10-20 m., codeine, ½ to 1 grain as necessary, or calcreose 10 grs. ½ hour after meals and 20 grs. at bedtime.

9. Hot sitz baths.

10. Rest as much as possible.

SUBACUTE AND CHRONIC URETHRITIS

11. Begin treatment when second glass of urine becomes clear.

12. Intravesical irrigations of 1-8000 potassium permanganate with irrigation can not more than 3½ feet above urethral level. Irrigate every fourth day. Temporarily discontinue irrigations if symptoms of harm arise. *Do not force sphincter—encourage patient to relax.*

13. After several weeks of irrigations, begin digital treatment of prostate gland. Massage mildly at first and every third to fourth day. If any reaction to stroking, wait a week. Irrigate previous to massage, leaving some fluid in bladder to be voided after prostatic strokings. This prevents occurrence of increase in urethral discharge.

14. Discontinue intravesical irrigations after about 6 weeks of prostatic massage.

15. Stop massages when prostatic secretion shows 5 or less white cells per high-power field.—*The Journal of the Medical Association of the State of Alabama* (Feb. 1940).

President's Page

"Now sickening Physick hangs her pensive head
And what was once a Science, now's a Trade."

SO WROTE Garth, the poet-doctor, in 1699, but Doctor Garth was wrong. Medicine was not a trade then. It is not now, a Federal Court decision to the contrary.

Today, medicine is a science and not a trade largely because the profession has made a constant and continuing effort to keep it so, to improve that science, and to implement the discoveries made in the field of preventive and curative medicine for the benefit of the peoples of the world. In this continuing effort the Medical Society has ever occupied a most important rôle.

Today, we are facing a new problem. Heretofore, it has been to raise the standards of medicine, to discourage commercialism and to inculcate the tenets of our founding fathers; now we fight to maintain our standing as scientific bodies. We are not a trade. We do not like being branded so. A court decision in itself does not make it so, but should governmental control follow, we will come nearer than ever before in our history, to the trade concept.

"A common devotion to our own life's work," says Cushing, "binds us together as are bound no other group of people."

And now, threatened from without, self interest should bind us still closer. For protection, we must look to organized medicine which speaks with the emphasis of the entire group.

With the stake you have in your profession, ask yourself whether you are giving that active support to your Society which the exigencies of today require.

Burton P. Corbus

President, Michigan State Medical Society

Michigan State Medical Society
Roster 1940

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Hamlin, Lloyd E..... Norway
Hayes, R. E..... Sagola
Hoffman, Erwin F..... Iron Mountain
Huron, W. H..... Iron Mountain
Irvine, L. E..... Iron River
Kofmehl, William J..... Stambaugh
Levine, D. A..... Iron River
Menzies, Clifford ..... Iron Mountain
Smith, Donald R..... Iron Mountain
White, Robert E..... Stambaugh

Eaton County

Anderson, K. A.....Charlotte
Arner, Fred Levi.....Bellvue
Bradley, James B.....Eaton Rapids
Brown, B. Philip.....Charlotte
Burdick, Austin F.....Grand Ledge
Burleson, A. H.....Olivet
Engle, Paul .....Olivet
Hannah, H. W.....Charlotte
Hargrave, Don V.....Eaton Rapids
Huber, Charles D.....Charlotte
Imthun, Edgar F.....Grand Ledge
Lawther, John .....Charlotte
Moyer, H. A.....Charlotte
Myers, Albert W.....Potterville
Paine, E. Madison, Jr...Grand Ledge
Paine, E. M.....Grand Ledge
Quick, Phil H.....Olivet
Rickerd, Vinton J.....Charlotte
Sassaman, F. W.....Charlotte
Saur, John L.....Charlotte
Sevener, C. J.....Charlotte
Sevener, Lester G.....Charlotte
Sheets, A G.....Eaton Rapids
Stanka, Andrew George...Grand Ledge
Stimson, C. A.....Eaton Rapids
Stucky, George .....Charlotte
Van Ark, Bert.....Eaton Rapids
Wilensky, Thomas .....Eaton Rapids

Genesee County

Andrews, N. A. C.....Flushing
Anthony, George E.....Flint
Backus, G. R.....Flint
Bahlman, Gordon H.....Flint
Baird, James .....Flint
Bald, Frederick W.....Flint
Baske, Franklin W.....Flint
Bateman, L. G.....Flint
Benson, J. C.....Flint
Biggar, H. R.....Flint
Bishop, D. L.....Flint
Blakeley, A. C.....Flint
Bogart, Leon M.....Flint
Boles, William P.....Flint
Bonathan, A. T.....Flint
Boughton, Thelma G..Philadelphia, Pa.
Bradley, Robert .....Flint
Brain, R. Gordon.....Flint
Brasie, D. R.....Flint
Briggs, Guy D.....Flint
Burkett, L. V.....Flint
Burnell, B. E.....Flint
Burnell, Max .....Flint
Chambers, Myrton S.....Flint
Chandler, M. E.....Flint
Charters, John H.....Fenton
Childs, Lloyd H.....Flint
Clark, Clifford P.....Flint
Clift, M. William.....Flint
Colwell, C. W.....Flint
Connell, J. T.....Flint
Conover, G. V.....Flint
Conover, T. S.....Flint
Cook, Henry .....Flint
Covert, F. L.....Gaines
Credille, B. A.....Flint
Curry, George .....Flint
Curtin, J. H.....Flint
Del Zingro, N.....Davison
Dimond, E. G.....Flint
Dodds, F. E.....Flint
Drewyer, Glen .....Flint
Edgerton, A. C.....Clio
Elliott, H. B.....Flint
Evers, J. W.....Flint
Farhat, M. M.....Flint
Finkelstein, T. .....Flint
Flynn, S. T.....Flint
Foley, S. I.....Flint
Fuller, H. T.....Mt. Morris
Gelenger, S. M.....Flint
Gibson, Edward D.....Flint
Gleason, N. Arthur.....Flint
Goering, George R.....Flint
Golden, H. Maxwell.....Flint
Goodfellow, B. .....Flint
Gorne, S. S.....Flint
Graham, Hugh W.....Mt. Morris
Grover, H. F.....Flint
Guile, Earle .....Flint
Guile, G. S.....Flint
Gundry, G. L.....Grand Blanc
Gutow, I. .....Flint
Gutow, J. J.....Flint
Hauge, R. F.....Flint
Halligan, Raymond S.....Flint
Handy, John W.....Flint
Harper, A. W.....Flint
Harper, Homer .....Flint
Hawkins, James E.....Flint
Hays, George A.....Flint
Hiscock, H. H.....Flint
Houston, James .....Swartz Creek
Hubbard, William B.....Flint
Jefferson, Harry A.....Flint
Johnson, F. .....Flint
Kaufman, Lewis D.....Flint
Kirk, A. Dale.....Flint
Kretchmar, A. H.....Flint
Kurtz, J. J.....Flint
Lambert, L. A.....Flint
Lavin, Kathryn R.....Flint
Leach, J. L.....Flint
Logan, G. W.....Flushing
MacDuff, R. B.....Flint
MacGregor, D. M.....Flint
MacGregor, J. C.....Flint
MacGregor, R. W.....Flint
Macksood, Joseph .....Flint
Malfroid, B. W.....Flint
Marshall, William H.....Flint
Marsh, H. L.....Flint
Mason, Elta .....Flint
Matthewson, Guy C.....Flint
McArthur, A. .....Flint
McArthur, R. H.....Clio
McGarry, Burton G.....Fenton
McGarry, R. A.....Flint
McGregor, James C.....Flint
McKenna, O. W.....Flint
Miller, Edwin E.....Flint
Miner, Frederick B.....Flint
Moore, John W.....Flint
Moore, Kenneth B.....Flint
Morrish, Ray S.....Flint
Morrissey, V. H.....Flint
Moiser, Edward C.....Otisville
Odle, Ira .....Flint
Olson, James A.....Flint
O'Neil, C. H.....Flint
Orr, J. Walter.....Flint
Phillips, R. L.....Flint
Pfeifer, A. C.....Mt. Morris
Pratz, O. C.....Flint
Preston, Otto .....Flint
Probert, C. C.....Flint
Randall, H. E.....Flint
Reeder, Frank E.....Flint
Reid, Wells C.....Goodrich
Reynolds, A. J.....Flint
Rice, E. D.....Flint
Richeson, V.....Flint
Roberts, Floyd A.....Flint
Rosenblum, Herman G.....Flint
Rowley, James A.....Flint
Rundles, Walter Z.....Flint
Rynearson, W. J.....Fenton
Sandy, K. R.....Flint
Scavarda, Charles J.....Flint
Schiff, B. A.....Flint
Scott, R. D.....Flint
Shantz, L. O.....Flint
Sleeman, Blythe R.....Linden
Sheeran, Daniel H.....Flint
Shipman, Charles W.....Flint
Smith, D. C.....Flint
Smith, E. C.....Flint
Smith, Maurice J.....Flint
Sniderman, Benjamin .....Flint
Snyder, Charles E.....Swartz Creek
Sorkin, Morris L.....Flint
Sorkin, S. S.....Flint
Spencer, J. A.....Flint
Steinman, F. H.....Flint
Stephenson, Robert A.....Flint
Stevenson, W. W.....Flint
Streat, R. W.....Flint
Stroup, C. K.....Flint
Sutherland, James K.....Flint
Sutton, George .....Flint
Sutton, M. R.....Flint
Thompson, Alvin .....Flint
Treat, D. L.....Flint
Trumble, G. W.....Flint
Van Gorder, George.....Davison
Vary, Edwin P.....Flint
Walcott, C. G.....Fenton
Walden, C. E.....Flint
Ward, Nell .....Flint
Ware, Frank A.....Flint
Wark, D. R.....Flint
White, Herbert .....Flint
Williams, W. S.....Flint
Willoughby, G. L.....Flint
Willoughby, L. L.....Flint
Wills, T. N.....Flint
Winchester, Walter H.....Flint
Woughter, Harold W.....Flint
Wright, D. R.....Flint
Wright, G. R.....Montrose
Wyman, J. S.....Flint

Gogebic County

Anderson, Charles E.....Bessemer
Conley, W. C.....Ironwood
Crosby, Theodore S.....Ironwood
Eisele, D. C.....Ironwood
Gertz, M. A.....Ironwood
Gorrilla, A. C.....Ironwood
Gullickson, Miles .....Ironwood
Lieberthal, M. J.....Ironwood
Lieberthal, Paul .....Ironwood
Maccani, W. L.....Ironwood
Maloney, F. G. H.....Ironwood
Nezworski, H. T.....Ramsey
O'Brien, A. J.....Ironwood
Pierpont, D. C.....Ironwood
Pinkerton, H. A.....Ironwood
Pinkerton, W. J.....Bessemer
Rees, Thomas R.....Ironwood
Reid, John D.....Ironwood
Reynolds, F. L.....Ironwood
Stevens, Charles E.....Bessemer
Tew, William Ellwood.....Bessemer
Tressel, H. A.....Wakefield
Urquhart, C. C.....Ironwood
Wacek, W. H.....Ironwood

Grand Traverse-Leelanau-Benzie Counties

Altland, J. K.....Traverse City
Bolan, Ellis J.....Suttons Bay
Brownson, Jay J.....Kingsley
Brownson, Kneale .....Traverse City
Bushong, B. B.....Traverse City
Ellis, Claude I.....Suttons Bay
Evans, E. E.....Los Angeles, Calif.
Gauntlett, J. W.....Traverse City
Goodrich, Dwight .....Traverse City
Grawn, F. A.....Traverse City
Hamilton, Earl E.....Traverse City
Holliday, George A.....Traverse City
Huene, Nevin .....Traverse City
Huston, Russell R.....Elk Rapids
Jerome, Jerome T.....Traverse City
Kitson, V. H.....Elk Rapids
Kyselka, H. B.....Traverse City
Lemen, Charles E.....Traverse City
Lossman, R. T.....Traverse City
Nickels, M. M.....Traverse City
Osterlin, Mark .....Traverse City
Rinear, Edwin .....Traverse City
Sladek, E. F.....Traverse City
Stone, Fordyce, H.....Beulah
Swanton, L. .....Traverse City
Swartz, F. G.....Traverse City
Thacker, Fred R.....Frankfort
Thirlby, E. L.....Traverse City
Thompson, T. W.....Traverse City
Trautman, Frederick D.....Frankfort
Way, Lewis R.....Traverse City
Willoughby, Frances Lois.Traverse City
Zielke, I. H.....Traverse City
Zimmerman, J. G.....Traverse City

Gratiot-Isabella-Clare Counties

Aldrich, Alfred L. ..... Ithaca
Barstow, D. K. ..... St. Louis
Barstow, William E. ..... St. Louis
Becker, Myron G. ..... Edmore
Budge, M. J. ..... Ithaca
Burch, L. J. ..... Mt. Pleasant
Burt, C. E. ..... Ithaca
Carney, T. J. ..... Alma
Dale, Edward C. ..... Shepherd
Davis, L. L. ..... Mt. Pleasant
Drake, Wilkie M. ..... Breckenridge
Du Bois, C. F. ..... Alma
Faber, Michael ..... Ashley
Hall, B. C. ..... Pompeii
Hammerberg, Kuno ..... Clare
Harrigan, W. L. ..... Mt. Pleasant
Hobbs, A. D. ..... St. Louis
Howell, Don M. ..... Alma
Johnson, P. R. ..... Mt. Pleasant
Lamb, E. T. ..... Alma
McArthur, Stewart C. ..... Mt. Pleasant
Pullen, C. D. ..... Mt. Pleasant
Rondot, E. F. ..... Lake
Oldham, E. S. ..... Breckenridge
Sanford, B. J. ..... Clare
Sarven, James D. ..... Middleton
Slattery, F. G. ..... Clare
Strange, Russell H. ..... Mt. Pleasant
Waggoner, R. L. ..... St. Louis
Wilcox, R. A. ..... Alma
Wilson, Earl C. ..... Harrison
Wolfe, Kenneth P. ..... Alma
Wood, Cornelius B. ..... Clare

Hillsdale County

Alleger, W. E. ..... Pittsford
Bower, Charles T. ..... Hillsdale
Bowers, M. H. ..... Hillsdale
Clobridge, C. E. ..... Allen
Day, Luther W. ..... Jonesville
Fisk, Fred B. ..... Jonesville
Green, B. F. ..... Hillsdale
Hamilton, A. J. ..... Hillsdale
Hanke, George R. ..... Ransom
Heald, J. E. ..... Hillsdale
Hodge, C. L. ..... Reading
Hughes, Henry F. ..... Hillsdale
Joerin, Wm. ..... Camden
Johnson, C. E. ..... Hillsdale
Kinzel, R. W. ..... Litchfield
Kline, Fred D. ..... Litchfield
Mattson, H. F. ..... Hillsdale
Martindale, E. A. ..... Hillsdale
McFarland, O. G. ..... North Adams
Miller, Harry C. ..... Hillsdale
Poppen, C. J. ..... Reading
Sawyer, Walter ..... Jonesville
Sterling, John S. ..... Jerome
Strom, A. W. ..... Hillsdale
Yeagley, J. L. ..... Waldron

Houghton-Baraga-Keweenaw Counties

Abrams, James C. ..... Calumet
Acocks, J. R. ..... Houghton
Aldrich, A. B. ..... Houghton
Aldrich, Addison D. ..... Houghton
Aldrich, Leonard ..... Hancock
Bourland, Philip D. ..... Calumet
Brewington, George F. ..... Mohawk
Buckland, R. S. ..... Baraga
Burke, John ..... Hubbell
Coffin, Leslie E. ..... Painesdale
Cooper, C. A. ..... Hancock
Gregg, W. T. S. ..... Calumet
Hillmer, R. E. ..... Beacon Hill
Janis, A. J. ..... Hancock
Kadin, Maurice ..... Calumet
King, William T. ..... Ahmeek
Kirton, Joseph R. W. ..... Calumet
LaBine, Alfred ..... Houghton
Levin, Simon ..... Houghton
Leo, L. S. ..... Houghton
MacQueen, Donald K. ..... Laurium
Manthei, W. A. ..... Lake Linden
Marshall, Frank F. ..... L'Anse
McClure, Robert James ..... Calumet
Pleune, R. E. ..... Houghton
Quick, James B. ..... Laurium
Roberts, Melvin D. ..... Hancock
Roche, A. C. ..... Calumet
Rupprecht, C. H. ..... Calumet
Scott, William P. ..... Houghton
Sloan, P. S. ..... Trimountain
Smith, Charles R. ..... Houghton
Stern, Isadore D. ..... Houghton
Stewart, G. C. ..... Hancock
Stewart, J. C. B. ..... Painesdale
Stewart, Marshall .... Valhalla, N. Y.
Tinetti, Ernest F. ..... Laurium
Waldie, George McLeod .... Isheming
Ware, H. M. ..... Calumet
Wickliffe, T. P. ..... Calumet
Willson, P. H. ..... Chassell
Winkler, Henry J. ..... L'Anse

Huron-Sanilac Counties

Blanchard, E. W. ..... Deckerville
Caccamise, Joseph G. ..... Sebewaing
Cochran, Lewis E. ..... Peck
Flick, Earl J. ..... Croswell
Gettel, Roy R. ..... Kinde
Gift, W. A. ..... Marlette
Hart, R. K. ..... Croswell
Henderson, J. Bates ..... Pigeon
Herrington, Charles I. ..... Bad Axe
Herrington, Willet J. ..... Bad Axe
Holdship, William B. ..... Ubly
Kirker, F. O. ..... Sandusky
Koch, D. ..... Brown City
Learmont, H. H. ..... Croswell
Monroe, Duncan J. ..... Elkton
Morden, Charles B. ..... Bad Axe
Norgaard, Hal V. ..... Marlette
Oakes, C. W. ..... Harbor Beach
Ritsema, John ..... Sebewaing
Robertson, Colin G. ..... Sandusky
Scheurer, C. ..... Pigeon
Siegfried, E. G. ..... Harbor Beach
Thumme, Harrison F. ..... Sebewaing
Tweedie, G. Evans ..... Sandusky
Tweedie, S. Martin ..... Sandusky
Webster, John C. ..... Marlette

Ingham County

Albers, J. H. ..... East Lansing
Albert, Wilford D. ..... Leslie
Barnum, S. V. ..... Lansing
Barrett, C. D. ..... Mason
Bartholomew, Henry S. ..... Lansing
Bauer, Theodore I. ..... Lansing
Behen, William C. ..... Lansing
Bellinger, E. G. ..... Lansing
Black, Charles E. ..... Lansing
Bradford, C. W. ..... Lansing
Breakey, Robert S. ..... Lansing
Brubaker, E. ..... Lansing
Brucker, Karl B. ..... Lansing
Bruegel, Oscar H. ..... East Lansing
Burhans, Robert ..... Lansing
Cameron, W. J. ..... Lansing
Campbell, Archibald M. ..... Lansing
Carr, Earl I. ..... Lansing
Christian, L. G. ..... Lansing
Clark, William E. ..... Mason
Clinton, George ..... Mason
Cook, R. J. ..... Lansing
Corsaut, J. C. ..... Mason
Darling, L. H. ..... Lansing
Davenport, C. S. ..... Lansing
DeVries, C. F. ..... Lansing
Doyle, Charles R. ..... Lansing
Doyle, C. P. ..... Lansing
Drolett, Fred J. ..... Lansing
Drolett, Lawrence ..... Lansing
Dunn, F. C. ..... Lansing
Dunn, F. M. ..... Lansing
Ellis, Bertha W. ..... Lansing
Ellis, C. W. ..... Lansing
Finch, Russell L. ..... Lansing
Fisher, D. W. ..... Lansing
Fosget, Wilbur W. ..... Lansing
Foust, E. H. ..... Lansing
French, Horace L. ..... Lansing
Galbraith, Dugald A. ..... Lansing
Gardner, C. B. ..... Lansing
Gibson, T. E. ..... Lansing
Goldner, R. E. ..... Lansing
Gordon, Vida H. ..... Lansing
Gunderson, G. O. ..... Lansing
Guy, Spencer D. ..... Lansing
Harris, Dean W. ..... Lansing
Harrold, J. F. ..... Lansing
Hart, L. C. ..... Lansing
Haynes, H. B. ..... Lansing
Haze, Harry A. ..... Lansing
Heckert, Frank B. ..... Lansing
Heckert, J. K. ..... Lansing
Hendren, Owen ..... Williamston
Henry, L. L. ..... Lansing
Hermes, Ed. J. ..... Lansing
Himmelberger, R. J. ..... Lansing
Hodges, Kenneth P. ..... Lansing
Holland, Charles F. ..... East Lansing
Huggett, Clare C. ..... Lansing
Huntley, Fred M. ..... Lansing
Hurth, M. S. ..... Lansing
Johnson, K. H. ..... Lansing
Jones, Francis A. ..... Lansing
Kalmbach, R. E. ..... Lansing
Keim, O. D. ..... Lansing
Kent, Edith Hall ..... Lansing
Kent, Herbert K. ..... Lansing
Kraft, L. C. ..... Leslie
Larrabee, E. E. ..... Williamston
Loree, Maurice C. ..... Lansing
Lucas, T. A. ..... Lansing
Ludlum, L. C. ..... Lansing
McConnell, E. G. ..... Lansing
McCorvie, C. Ray ..... East Lansing
McCoy, Earl M. ..... Grand Ledge
McCrumb, R. R. ..... Lansing
McElmurry, N. K. ..... Perry
McGillicuddy, Oliver B. ..... Lansing
McGillicuddy, R. J. ..... Lansing
McIntyre, J. E. ..... Lansing
McNamara, William E. ..... Lansing
McPherson, E. G. ..... Stockbridge
Mercer, Walter E. ..... East Lansing
Meyer, Hugh R. ..... Lansing
Miller, H. A. ..... Lansing
Mitchell, A .B. ..... Lansing
Morrow, R. J. ..... Lansing
Newitt, Arthur W. ..... Lansing
Niles, B. D. ..... Lansing
Ochsner, P. J. ..... Lansing
O'Sullivan, Gertrude ..... Mason
Owen, A. E. ..... Lansing
Phillips, R. H. ..... Lansing
Pinkham, R. A. ..... Lansing
Ponton, J. ..... Mason
Prall, H. J. ..... Lansing
Randall, O. M. ..... Lansing
Richards, F. D. ..... DeWitt
Roberts, D. W. ..... Lansing
Robson, Edmund J. ..... Lansing
Rozan, J. S. ..... Lansing
Rozan, M. M. ..... Lansing
Russell, Claude V. ..... Lansing
Sander, John F. ..... Lansing
Sanford, Thomas M. ..... Lansing
Schnute, Louise F. ..... East Lansing
Seger, Fred L. ..... Lansing
Shaw, Milton ..... Lansing
Slemons, C. C. ..... Grand Rapids
Smith, Anthony V. ..... Mason
Smith, H. M. ..... Lansing
Smith, Lillian R. ..... Lansing
Snell, D. M. ..... Lansing
Snyder, Le Moyne ..... Lansing
Spencer, Perry ..... Lansing
Steiner, A. A. ..... Lansing
Stiles, Frank ..... Lansing
Strauss, P. C. ..... Lansing
Stringer, C. J. ..... Lansing
Tamblyn, F. W. ..... Lansing
Toothaker, Kenneth ..... Lansing
Towne, Lawrence C. ..... Lansing
Troost, F. L. ..... Holt
Vander Slice, E. R. ..... Lansing
Vander Zalm, T. P. ..... Lansing
Wadley, R. ..... Lansing
Warford, J. T. ..... Lansing
Webb, Roy O. ..... Okemos
Weinburgh, H. B. ..... Lansing
Welch, William H. ..... Lansing
Wellman, John N. ..... Lansing
Wetzel, John O. ..... Lansing
Wight, W. G. ..... Lansing
Wiley, Harold W. ..... Lansing
Willson, Howard S. ..... Lansing
Wilson, Harry A. ..... Lansing

Ionia-Montcalm Counties

Benison, Arthur L.....Edmore
Bird, William L.....Greenville
Botting, A. J.....Portland
Bower, A. J.....Greenville
Bracey, L. E.....Sheridan
Braley, Frank .....Saranac
Bunce, E. P.....Trufant
Crunican, A. J.....Hubbardson
Dunkin, Lloyd S.....Greenville
Ferguson, F. H.....Carson City
Fleming, J. C.....Pewamo
Fox, Harold M.....Portland
Fuller, Rudolphus W.....Crystal
Geib, O. P.....Carson City
Hansen, Carl M.....Stanton
Hansen, M. M.....Greenville
Haskell, Robert H.....Northville
Hoffs, M. A.....Lake Odessa
Hollard, A. E.....Belding
Johns, Joseph J.....Ionia
Kelsey, L. E.....Lakeview
Kling, V. F.....Ionia
La Victoire, Isaac N.....Ionia
Lilly, Isaac S.....Stanton
Lintner, Roy C.....Ionia
Marsh, F. M.....Ionia
Marston, L. L.....Lakeview
Maynard, Herbert M.....Ionia
McCann, John J.....Ionia
Mintz, Morris J.....Greenville
Norris, William W.....Portland
Peabody, C. H.....Lake Odessa
Peacock, T. L.....Lake Odessa
Pankhurst, C. T.....Ionia,
Phelps, Everett L.....Clarksville
Pinkham, J. F.....Belding
Robertson, P. C.....Ionia
Swift, E. R.....Lakeview
VanDuzen, V. L.....Belding
VanLoo, J. A.....Belding
Whitten, R. R.....Ionia
Willits, C. O.....Saranac

Jackson County

Ahronheim, J. H.....Jackson
Alter, R. H.....Jackson
Baker, G. M.....Parma
Balconi, Henry .....Jackson
Bartholic, F. W.....Grass Lake
Braunsdorf, R. L.....Jackson
Brown, H. A.....Jackson
Bullen, G. R.....Jackson
Chabut, H. M.....Jackson
Chivers, R. W.....Jackson
Clarke, C. S.....Jackson
Cochrane, Wayne A.....Jackson
Cooley, Randall M.....Jackson
Corley, C. .....Jackson
Corley, Ennis .....Jackson
Cox, Ferdinand .....Jackson
Crowley, Edward D.....Jackson
Culver, Guy D.....Stockbridge
DeMay, C. E.....Jackson
Dengler, C. R.....Jackson
Edmonds, J. M.....Horton
Finton, Walter L.....Jackson
Finton, W. R.....Jackson
Foust, W. L.....Grass Lake
Gibson, F. J.....Jackson
Glover, H. G.....Jackson
Greenbaum, Harry .....Jackson
Hackett, T. E.....Jackson
Hanft, Cyril F.....Springport
Hanna, R. J.....Jackson
Hardie, G. O.....Jackson
Hicks, Glenn C.....Jackson
Hungerford, P. R.....Concord
Huntley, W. B.....Jackson
Hurley, H. L.....Jackson
Keefer, A. H.....Concord
Kudner, Don F.....Jackson
Kugler, J. C.....Jackson
Lake, William H.....Jackson
Lathrop, William W.....Jackson
Leahy, E. O.....Jackson
Leonard, Clyde A.....Jackson
Lewis, E. F.....Jackson
Ludwick, J. E.....Jackson
MacNeal, John A.....Jackson
McGarvey, W. E.....Jackson
McLaughlin, M. J.....Jackson
Meads, J. B.....Jackson
Miller, J. L.....Jackson
Munro, C. D.....Jackson
Munro, James E.....Jackson
Murphy, B. M.....Jackson
Newton, R. E.....Jackson
Nichols, R. H.....Leslie
O'Meara, James J.....Jackson
Otis, Grant L.....Jackson
Payne, Andrew K.....Jackson
Peterson, E. S.....Jackson
Philips, David P.....Jackson
Porter, H. W.....Jackson
Pray, Frank F.....Jackson
Pray, George R.....Jackson
Ransom, F. G.....Jackson
Riley, Philip.....Jackson
Roberts, Arthur J.....Jackson
Schepeler, Courtland W.....Brooklyn
Scheurer, Peter Arthur....Manchester
Schmidt, T. E.....Jackson
Scott, John.....Jackson
Seybold, George A.....Jackson
Shaeffer, A. M.....Jackson
Sirhal, Alfred M.....Brooklyn
Smith, Dean W.....Jackson
Smith, John C.....Jackson
Speck, John W.....Jackson
Spicer, W. E.....Jackson
Stewart, L. L.....Jackson
Sugar, Samuel.....Jackson
Susskind, M. V.....Jackson
Thayer, E. A.....Jackson
Thalner, L. F.....Jackson
Tuthill, F. S.....Concord
Van Schoick, J. D.....Hanover
Van Schoick, Frank.....Jackson
Vivirski, Edward E.....Jackson
Wertenberger, M. D.....Jackson
Wholihan, John W...Michigan Center
Wickham, W. A.....Jackson
Wilson, E. D.....Jackson
Wilson, E. G.....Jackson
Wilson, N. D.....Jackson
Winter, G. E.....Jackson

Kalamazoo County

Aach, Hugo.....Kalamazoo
Adams, R. U.....Kalamazoo
Alexander, C. A.....Kalamazoo
Andrews, Sherman.....Kalamazoo
Armstrong, Robert J.....Kalamazoo
Banner, Lawrence R.....Kalamazoo
Barnebee, J. W.....Kalamazoo
Barrett, F. Elizabeth.....Kalamazoo
Behan, Gerald W.....Galesburg
Bennett, Charles L.....Kalamazoo
Bennett, Keith.....Kalamazoo
Berry, J. F.....Kalamazoo
Bodmer, H. C.....Kalamazoo
Borgman, Wallace.....Kalamazoo
Boys, C. E.....Kalamazoo
Brooks, Ervin D.....Kalamazoo
Brown, I. W.....Kalamazoo
Burns, J. T.....Kalamazoo
Caldwell, George H.....Kalamazoo
Cobb, Horace R.....Kalamazoo
Cook, R. G.....Kalamazoo
Crane, W. B.....Kalamazoo
Crawford, Kenneth.....Kalamazoo
Dean, Ray.....Three Rivers
Den Bleyker, Walter.....Kalamazoo
DeWitt, L. H.....Kalamazoo
Dowd, B. J.....Kalamazoo
Doyle, F. M.....Kalamazoo
Ertell, William Francis.....Kalamazoo
Fast, R. B.....Kalamazoo
Fopeano, John V.....Kalamazoo
Fulkerson, C. B.....Kalamazoo
Fuller, R. T.....Kalamazoo
Fuller, Paul.....Kalamazoo
Gerstner, Louis.....Kalamazoo
Glenn, Audrey.....Kalamazoo
Grant, Frederick E.....Kalamazoo
Gregg, Sherman.....Kalamazoo
Harter, Randolph S.....Schoolcraft
Heersma, H. S.....Kalamazoo
Hildreth, R. C.....Kalamazoo
Hodgman, Albert B.....Kalamazoo
Hoebeke, William G.....Kalamazoo
Holder, Charles.....Kalamazoo
Howard, W. H.....Galesburg
Hubbell, R. J.....Kalamazoo
Huyser, William C.....Kalamazoo
Ilgenfritz, F. M.....Kalamazoo
Irwin, William D.....Kalamazoo
Jackson, John B.....Kalamazoo
Jennings, W. O.....Kalamazoo
Kavanaugh, William R.....Kalamazoo
Kenzie, W. N.....Camp Custer
Klerk, W. J.....Kalamazoo
Koestner, Paul.....Kalamazoo
Lambert, R. H.....Kalamazoo
Lang, W. W.....Kalamazoo
Lavender, Howard.....Kalamazoo
Light, Richard Upjohn.....Kalamazoo
Littig, John.....Kalamazoo
MacGregor, J. R.....Kalamazoo
Malone, James G.....Kalamazoo
Marshall, Don.....Kalamazoo
McCarthy, J. S.....Kalamazoo
McIntyre, Charles H.....Kalamazoo
McNair, Rush.....Kalamazoo
Morter, Roy A.....Kalamazoo
Nibbelink, Benjamin.....Kalamazoo
Osborne, Charles E.....Vicksburg
Patos, Martin.....Kalamazoo
Peelen, J. W.....Kalamazoo
Peelen, Matthew.....Kalamazoo
Perry, Clifton.....Kalamazoo
Prentice, Hazel R.....Kalamazoo
Rickert, John A.....Allegan
Rigterink, G. H.....Kalamazoo
Rigterink, H. A.....Kalamazoo
Rockwell, A. H.....Kalamazoo
Rockwell, Donald C.....Kalamazoo
Sage, E. D.....Kalamazoo
Scholten, D. J.....Kalamazoo
Scholten, William.....Kalamazoo
Schrier, C. M.....Kalamazoo
Schrier, Paul.....Kalamazoo
Schrier, Thomas.....Comstock
Scott, William A.....Kalamazoo
Sears, H. A.....Kalamazoo
Shackleton, William E.....Kalamazoo
Shepard, Benjamin A.....Kalamazoo
Shook, R. W.....Kalamazoo
Simpson, B. A.....Kalamazoo
Smith, Ellen.....Kalamazoo
Sofen, Morris B.....Kalamazoo
Southworth, M. N.....Schoolcraft
Stewart, L. H.....Kalamazoo
Struthers, J. N. P.....Kalamazoo
Stryker, Homer H.....Kalamazoo
Upjohn, E. Gifford.....Kalamazoo
Upjohn, L. N.....Kalamazoo
Van Urk, Thomas.....Kalamazoo
Volderauer, John C.....Kalamazoo
Wagar, Carl.....Kalamazoo
Wagenaar, E. H.....Kalamazoo
Walker, Burt D.....Kalamazoo
Weirich, Richard.....Marcellus
West, A. E.....Kalamazoo
Westcott, L. E.....Kalamazoo
Wilbur, E. P.....Kalamazoo
Youngs, A. S.....Kalamazoo
Youngs, C. A.....Kalamazoo

Kent County

Adams, F. A.....Grand Rapids
Aitken, George T.....Grand Rapids
Allen, R. V.....Grand Rapids
Bachman, G. A.....Grand Rapids
Baert, George H.....Grand Rapids
Baker, Abel J.....Grand Rapids
Ballard, M. S.....Grand Rapids
Balyeat, Gordon W.....Grand Rapids
Beeman, Carl B.....Grand Rapids
Beeman, C. E.....Grand Rapids
Beets, W. Clarence.....Grand Rapids
Bell, Charles M.....Grand Rapids
Bettison, William L.....Grand Rapids
Billings, Elton P.....Grand Rapids
Bishop, T. P.....Grand Rapids
Bloxsom, P. W.....Grand Rapids
Boelkins, Richard C.....Grand Rapids
Boet, F. A.....Grand Rapids
Boet, John.....Grand Rapids
Bolender, J. E.....Grand Rapids
Bond, George Lewis.....Grand Rapids
Bosch, L. C.....Grand Rapids
Brace, Fred.....Grand Rapids
Brayman, C. W.....Cedar Springs

Brink, Russel.....Grand Rapids
Brook, Jacob D.....Grandville
Brotherhood, J. S.....Grand Rapids
Browning, Eugene S.....Grand Rapids
Buesing, O. R.....Grand Rapids
Bull, Frank L.....Sparta
Burleson, John S.....Grand Rapids
Burleson, Willard.....Grand Rapids
Burling, Wesley.....Grand Rapids
Butler, William J.....Grand Rapids
Cameron, Don Bruce.....Grand Rapids
Campbell, Alexander McKenzie .....Grand Rapids
Carpenter, Luther Clarendon .....Grand Rapids
Chadwick, W. L.....Grand Rapids
Chamberlain, L. H.....Grand Rapids
Chandler, Donald.....Grand Rapids
Cilley, E. O.....Grand Rapids
Clapp, Henry W.....Grand Rapids
Claytor, R. W.....Grand Rapids
Collisi, H. S.....Grand Rapids
Colvin, W. G.....Grand Rapids
Corbus, Burton R.....Grand Rapids
Crane, Charles V.....Grand Rapids
Crane, Harold D.....Grand Rapids
Currier, F. P.....Grand Rapids
Dales, Ernest W.....Grand Rapids
Damstra, H. J.....Grand Rapids
Davis, D. B.....Grand Rapids
Dean, Alfred W.....Grand Rapids
De Boer, Guy William...Grand Rapids
Dell, E. E.....Sand Lake
DeMaagd, Gerald.....Rockford
DeMol, Richard J.....Grand Rapids
Denham, R. H.....Grand Rapids
De Pree, Isla G.....Grand Rapids
De Pree, Joseph.....Grand Rapids
DeVel, Leon.....Grand Rapids
De Vries, Daniel.....Grand Rapids
Dewar, M. M.....Grand Rapids
Diamond, F. J.....Grand Rapids
Dick, Mark W.....Grand Rapids
Dickstein, Bernard.....Grand Rapids
Dixon, Willis L.....Grand Rapids
Doran, Frank .....Grand Rapids
Droste, James C.....Grand Rapids
DuBois, William J.....Grand Rapids
Duiker, Henry.....Grand Rapids
Eaton, Robert M.....Grand Rapids
Eggleston, H. R.....Grand Rapids
Failing, John F.....Grand Rapids
Farber, Charles E.....Grand Rapids
Faust, L. W.....Grand Rapids
Fellows, Kenneth E.....Grand Rapids
Ferguson, Lynn A.....Grand Rapids
Ferguson, Ward S.....Grand Rapids
Ferrand, L.....Rockford
Fitts, Ralph L.....Grand Rapids
Flynn, J. D.....Grand Rapids
Foshee, J. C.....Grand Rapids
Frantz, Charles H.....Grand Rapids
Freyling, Robert.....Grand Rapids
Fuller, E. H.....Grand Rapids
Gaikema, E. W.....Grand Rapids
Gainey, James J.....Grand Rapids
Geenen, C. J.....Grand Rapids
Gibbs, F. F.....Grand Rapids
Gilbert, R. H.....Grand Rapids
Gillett, O. H.....Grand Rapids
Grant, Lee O.....Grand Rapids
Graybiel, George P.....Caledonia
Griffith, L. S.....Grand Rapids
Hagerman, D. B.....Grand Rapids
Hayes, L. W.....Howard City
Heetderks, Dewey R.....Grand Rapids
Henry, James, Jr.....Grand Rapids
Herrick, Ruth.....Grand Rapids
Hill, A. Morgan.....Grand Rapids
Hilt, Lawrence M.....Grand Rapids
Hodgen, J. T.....E. Grand Rapids
Holcomb, J. W.....Grand Rapids
Holdsworth, M. J.....Grand Rapids
Holke boer, Henry D....Grand Rapids
Hollander, Stephen.....Grand Rapids
Hoogerhyde, Jack.....Grand Rapids
Hufford, A. R.....Grand Rapids
Hunderman, Edward....Grand Rapids
Hutchinson, Robert J....Grand Rapids
Hyland, W. A.....Grand Rapids
Ingersoll, C. F.....Grand Rapids
Irwin, Thomas C.....Grand Rapids
Jameson, Fred M.....Grand Rapids
Jaracz, W. J.....Grand Rapids
Kelly, Robert E.....Grand Rapids
Kemmer, Thomas R.....Grand Rapids
Kendall, Eugene L.....Grand Rapids
Klaus, C. D.....Grand Rapids
Kniskern, P. W.....Grand Rapids
Kooistra, Henry P.....Grand Rapids
Kremer, John.....Grand Rapids
Kreulen, H. J.....Grand Rapids
Kriekard, P. J.....Grand Rapids
Krupp, C. G.....Grand Rapids
Laird, Robert G.....Grand Rapids
Lamb, George F.....Grand Rapids
Lanning, N. E.....Grand Rapids
Lanting, D. B.....Grand Rapids
Lavan, John .....Grand Rapids
Le Roy, Simeon.....Grand Rapids
Lieffers, Harry.....Grand Rapids
Lyman, William D.....Grand Rapids
MacDonell, James A.....Lowell
MacPherson, Alexander..Grand Rapids
Marrin, M. M.....Grand Rapids
Marsh, J. P.....Grand Rapids
Maurits, Reuben.....Grand Rapids
McKenna, J. L.....Grand Rapids
McKinlay, L. M.....Grand Rapids
McRae, John H.....Grand Rapids
Meengs, Jacob Earl.....Grand Rapids
Mehney, Gayle H.....Grand Rapids
Miller, J. Duane.....Grand Rapids
Miller, John J.....Marne
Mitchell, H. C.....Grand Rapids
Mitchell, W. B.....Grand Rapids
Moen, Cornetta G.....Grand Rapids
Moleski, Stanley L.....Grand Rapids
Moll, Arthur M.....Grand Rapids
Mollman, Arthur.....Grand Rapids
Moore, Vernor M.....Grand Rapids
Mulder, J. D.....Grand Rapids
Murphy, M. J.....Grand Rapids
Nelson, A. R.....Grand Rapids
Nesbitt, E. N.....Grand Rapids
Noordewier, Albert.....Grand Rapids
Northouse, Peter B.....Grandville
Northrup, William.....Grand Rapids
Nyland, Albertus.....Grand Rapids
Oliver, W. W.....Grand Rapids
Osborne, Howard.....Grand Rapids
Paalman, Russell J.....Grand Rapids
Patterson, P. Wilfred....Grand Rapids
Pedden, J. R., Jr.....Grand Rapids
Phillips, J. W.....Grand Rapids
Pott, A. L.....Grand Rapids
Pyle, Henry J.....Grand Rapids
Quigley, Ruth E.....Grand Rapids
Ralph, L. Paul.....Grand Rapids
Reed, Torrance.....Grand Rapids
Reus, William F.....Jamestown
Rigterink, J. W.....Grand Rapids
Riley, G. L.....Grand Rapids
Roberts, Mortimer E.....Grand Rapids
Robinson, Harold C.....Grand Rapids
Rodgers, W. L.....Grand Rapids
Rogers, John R.....Grand Rapids
Roth, Emil M.....Grand Rapids
Schermerhorn, L. J.....Grand Rapids
Schnoor, E. W.....Grand Rapids
Sculley, Ray E.....Grand Rapids
Sevensma, Elisha S.....Grand Rapids
Sevey, L. E.....Grand Rapids
Shepard, B. H.....Lowell
Shellman, Millard W.....Grand Rapids
Smith, A. B.....Grand Rapids
Smith, Ferris N.....Grand Rapids
Smith, R. Earle.....Grand Rapids
Smith, Richard R.....Grand Rapids
Snapp, Carl F.....Grand Rapids
Snyder, Clarence.....Grand Rapids
Southwick, George H.....Grand Rapids
Steffensen, W. H.....Grand Rapids
Stonehouse, G. G.....Grand Rapids
Stover, Virgil E.....Grand Rapids
Stuart, Gerhardus J.....Grand Rapids
Sugg, Cullen E.....Grand Rapids
Sus Strong, Carl A.....Grand Rapids
Swenson, H. C.....Grand Rapids
Ten Have, J.....Grand Rapids
Tesseine, A. J.....Grand Rapids
Teusink, J. H.....Cedar Springs
Thompson, Archibald B..Grand Rapids
Thompson, Athol B., Jr..Grand Rapids
Thompson, P. L.....Grand Rapids
Tidey, Marcus B.....Grand Rapids
Tiffany, Joseph C.....Grand Rapids
Torgerson, William R....Grand Rapids
Van Belois, Harvard J...Grand Rapids
Van Bree, R. S.....Grand Rapids
Vanden Berg, Henry J...Grand Rapids
VanDuine, H. J.....Byron Center
Vann, N. S.....Grand Rapids
Van Solkema, Andrew...Grand Rapids
Van Solkema, Arthur.....Grandville
Van Woerkom, Daniel...Grand Rapids
Veldman, Harold E.....Grand Rapids
Veenboer, William H....Grand Rapids
Venema, Jay R.....Grand Rapids
Vis, William R.....Grand Rapids
Vyn, J. D.....Grand Rapids
Warnshuis, Frederick C. .....Washington, D. C.
Webb, Rowland.....Grand Rapids
Webber, Jerome.....Grand Rapids
Webster, G. W.....Grand Rapids
Wedgewood, L. G.....Grandville
Wells, Merrill.....Grand Rapids
Wenger, A. V.....Grand Rapids
Wenger, John N.....Coopersville
Westrate, Paul.....Grand Rapids
Whinery, Joseph B.....Grand Rapids
Willits, P. W.....Grand Rapids
Winter, Garrett E.....Grand Rapids
Woodburne, A. R.....Grand Rapids
Wright, John M.....Grand Rapids
Yegge, J. P.....Kent City

Lapeer County

Best, Herbert M.....Lapeer
Bishop, G. Clare.....Almont
Burley, David H.....Almont
Chapin, Clarence D.....Columbiaville
Dick, Kenneth W.....Imlay City
Dorland, Clark .....Lapeer
Hanna, Frederick R.....Lapeer
Johnson, Howard R.....Imlay City
McBride, J. R.....Lapeer
McLeod, K. W. A.....Lapeer
Merz, Henry G.....Lapeer
O'Brien, Daniel J.....Lapeer
Rehn, Adolph T.....Lapeer
Thomas, J. Orville.....North Branch
Tinker, F. A.....Lapeer
Zemmer, H. B.....Lapeer

Lenawee County

Abraham, A. O.....Hudson
Beebe, I. J.....Morenci
Blanchard, L. E.....Hudson
Bland, J. P.....Adrian
Case, C. W.....Onsted
Chase, Artemus W.....Adrian
Claflin, G. M.....Deerfield
Clark, A. D.....Adrian
Claxton, W. T.....Britton
Colbath, W. E.....Adrian
Growt, Bowers H.....Addison
Hall, George C.....Adrian
Hammel, H. H.....Tecumseh
Hardy, P. B.....Tecumseh
Heffron, C. H.....Adrian
Heffron, Howard H.....Adrian
Helzerman, Ralph F.....Tecumseh
Hewes, A. B.....Adrian
Hornsby, W. B.....Clinton
Howland, F. A.....Adrian
Iler, Harris D.....Clinton
Jewett, William E., Jr.....Adrian
Lamley, Arthur E.....Blissfield
Lennox, A. L.....Adrian
Loveland, Horace H.....Tecumseh
MacKenzie, W. S.....Adrian
McCue, F. J.....Hudson
McGarvey, Maurice R.....Blissfield
Marsh, R. G. B.....Tecumseh
Miller, Perry Lynford.....Adrian
Morden, Esli T.....Adrian
Patmos, Bernard.....Adrian
Peters, W. L.....Morenci
Raabe, E. C.....Morenci
Rawson, A. P.....Addison
Rogers, J. D.....Adrian
Spalding, A. L.....Hudson
Stafford, Leo J.....Adrian
Tubbs, R. V.....Blissfield
VanDusen, C. A.....Blissfield
Whitney, O.....Adrian
Wood, A. C.....Adrian
Wynn, G. H.....Adrian

Livingston County

Backe, John C.....Detroit
Brigham, Jeannette .....Howell
Burnett, Paul C.....Howell
Burt, K. L.....Howell
Cameron, Duncan A.....Brighton
Duffy, Ray M.....Pinckney
Finch, E. D.....Howell
Gamble, Shelby O.....Howell
Glenn, Bernard H.....Fowlerville
Hayner, R. A.....Howell
Hendren, J. J.....Fowlerville
Hill, Harold C.....Howell
Huntington, H. G.....Howell
Laboe, Edward W.....Lima, Ohio
Leslie, G. L.....Howell
Lojacono, Salvatore.....Howell
McDowell, Guy Marshall.....Howell
McGregor, Archie J.....Brighton
McIndoe, R. Bruce.....Howell
Sigler, Hollis L.....Howell
Stephens, D. C.....Howell

Luce County

Bohn, Frank P.....Newberry
Campbell, Earl H.....Newberry
Gibson, Robert E.....Newberry
Perry, Henry E.....Newberry
Purmort, William R., Jr.....Newberry
Spinks, Robert Earl.....Newberry
Stafford, Edna C.....Newberry
Surrell, Matthew A.....Newberry
Swanson, George F.....Newberry
Toms, Charles B.....Newberry
Tuttle, Jay F.....Newberry

Macomb County

Allen, Leroy K.....Roseville
Bailey, R.....St. Clair Shores
Banting, O. F.....Richmond
Berry, Henry G.....Mt. Clemens
Bower, A. B.....Armada
Caster, E. Wilbur.....Mt. Clemens
Croman, Joseph M., Jr...Mt. Clemens
Croman, Joseph M., Sr....Mt. Clemens
Curlett, James E.....Roseville
Deurloo, Henry W.....Romeo
Dudzinski, Edmund J...New Baltimore
Engels, J. A.....Richmond
Fluemer, Oswald .....Mt. Clemens
Greenshields, Robert.....Romeo
Hawley, R. E.....St. Clair Shores
Heine, A. .....Mt. Clemens
Humphreys, R. P.....New Haven
Kane, William J.....Mt. Clemens
Lane, W. D.....Romeo
Lynch, Russell E.....Center Line
McGuire, A. J.....Utica
Moore, G. F.....Mt. Clemens
Mulligan, P. T.....Mt. Clemens
Reichman, Joseph J.....Mt. Clemens
Reitzel, R. H.....Mt. Clemens
Rivard, Charles L....St. Claire Shores
Roth, G. E.....Armada
Rothman, A. M.....East Detroit
Ruedisueli, Clarence A.....Roseville
Russell, T. P.....Center Line
Salot, R. F.....Mt. Clemens
Scher, Joseph N.....Mt. Clemens
Seaman, John H.....New Haven
Sibrans, William A.....East Detroit
Smith, Milton C.....Mt. Clemens
Sturm, Fred A.....St. Clair Shores
Thompson, A. A.....Mt. Clemens
Ullrich, R. W.....Mt. Clemens
Wellard, Henry C.....New Baltimore
Wilde, M. M.....Warren
Wiley, Bruce .....Utica
Wiley, Herbert H.....Utica
Wolfson, Victor H.....Mt. Clemens

Manistee County

Bryan, Kathryn M.....Manistee
Campbell, J. Gary.....Manistee
Fairbanks, Stephen...Gainsville, Texas
Grant, C. L.....Manistee
Hansen, E. C.....Manistee
Konopa, John F.....Manistee
Lewis, Lee A.....Manistee
MacMullen, Harlen .....Manistee
Miller, E. B.....Manistee
Norconk, Ward H.....Bear Lake
Oakes, Ellery A.....Manistee
Ogilvie, G. D.....Manistee
Quinn, Henry M.....Copemish
Ramsdell, Homer A.....Manistee
Whitley, Alec .....Bear Lake

Marquette-Alger Counties

Bennett, Arthur K.....Marquette
Berry, Robert F.....Marquette
Bertucci, J. P.....Ishpeming
Casler, W. L.....Marquette
Cooperstock, M. .....Marquette
Corcoran, W. A.....Ishpeming
Corneliuson, Goldie B.....Ishpeming
Blake, H. P.....Bergland
Drury, Charles P.....Marquette
Elzinga, E .R.....Marquette
Erickson, Arvid W.....Ishpeming
Fennig, F. A.....Marquette
Hanelin, H. A.....Marquette
Harkin, J. C.....Marquette
Hirwas, C. L.....Marquette
Hornbogen, D. P.....Marquette
Janes, R. Grant.....Marquette
Keskey, George I.....Marquette
Knobloch, Howard .....Marquette
Knudson, George .....Negaunee
Lambert, W. C.....Marquette
LeGolvan, C. .....Marquette
McCann, Neal J.....Ishpeming
McIntyre, D. R.....Negaunee
Mudge, W. A.....Negaunee
Nicholson, J. B.....Marquette
Niemi, O. I.....Marquette
Picotte, Wilfrid S.....Ishpeming
Robbins, Nelson J.....Negaunee
Schutz, W. J.....Munising
Sicotte, Isaiah .....Michigamme
Swinton, A. L.....Marquette
Talso, Jacob .....Ishpeming
Vandeventer, Vivian H.....Ishpeming
Van Riper, Paul.....Champion
Westcott, Royal .....Morgan Heights
Wickstrom, George .....Munising

Mason County

Blanchette, Victor J.....Cluster
Farrier, Robert .....Ludington
Hoffman, Howard.....Ludington
Hunt, Ivan L.....Scottville
Kirwan, Edward J.....Ludington
Martin, W. S.....Ludington
Ostrander, R. A.....Ludington
Paukstis, Charles.....Ludington

Mecosta-Osceola Counties

Bruggema, Jacob .....Evart
Campbell, James B.....Big Rapids
Chess, Leo F.....Reed City
Franklin, Benjamin L.....Remus
Grieve, Glenn.....Big Rapids
Hall, Clifton.....Big Rapids
Igloe, Max C.....Big Rapids
Ivkovich, Paul .....Evart
Kilmer, Paul B.....Reed City
MacIntyre, Donald.....Big Rapids
McGrath, V. J.....Reed City
Peck, Louis K.....Barryton
Phillips, R. W.....Remus
Treynor, Thomas P.....Big Rapids
White, J. A.....Morley
Yeo, Gordon H.....Big Rapids

Menominee County

Corkill, C. C.....Menominee
DeWane, F. J.....Menominee
Flanagan, Clarence B.....Menominee
Heidenreich, John R.....Daggett
Jones, William S.....Menominee
Kaye, J. T.....Menominee
Kerwell, K. C.....Stephenson
Mason, Stephen C.....Menominee
Peterson, A. R.....Daggett
Sawbridge, Edward .....Stephenson
Scully, John C.....Menominee
Sethney, Henry T.....Menominee
Towey, J. W.....Powers

Midland County

Ballmer, Robert S.....Midland
Beck, Frank K.....Coleman
Gay, Harold Howard.....Midland
Grewe, N. C.....Midland
High, C. V., Jr.....Midland
Howe, Irvin M.....Midland
Linsenmann, Karl W.....Midland
MacCallum, Charles .....Midland
Maynard, W. A.....Coleman
Meisel, Edward H.....Midland
Pike, Melvin H.....Midland
Rice, Robert E.....Midland
Sherk, J. H.....Midland
Sjolander, Gust.....Midland
Towsley, W. D.....Midland
Von Haitinger, Kalmon S.....Midland

Monroe County

Acker, William F.....Monroe
Ames, Florence .....Monroe
Barker, Vincent L.....Monroe
Blakey, L. C.....Monroe
Bond, W. W.....Monroe
Cooper, E. M.....Rockwood
Denman, D. C.....Monroe
Dusseau, S. V.....Erie
Ewing, R. T.....Monroe
Fieldhouse, B. J.....Ida
Flanders, J. P.....Monroe
Gelhaus, William J.....Monroe
Golinvaux, C. J.....Monroe
Heffernan, John F.....Carleton
Hunter, M. A.....Monroe
Johnson, A. Esther.....Monroe
Karch, A. W.....Monroe
Landon, Herbert W.....Monroe
Long, Edgar C.....Monroe
McDonald, T. A.....Monroe
McGeoch, R. W.....Monroe
McMillin, J. H.....Monroe
Meck, H. L.....Dundee
Parmelee, O. E.....Lambertville
Pinkus, H. K.....Monroe
Reisig, A. H.....Monroe
Siffer, J. J.....Monroe
Smith, William A.....Petersburg
Stolpestad, C. T.....Monroe
Tomlinson, Ledyard.....New Port
Wagar, Spencer .....Rockwood
Williams, Robert J.....Monroe

Muskegon County

Anderson, A. J.....Muskegon
August, R. V.....Muskegon Heights
Barnard, Helen.....Muskegon
Bartlett, F. H.....Muskegon
Beers, Charles .....Holton
Benedict, A. L.....Muskegon
Bloom, C. J.....Muskegon
Boyd, D. R.....Muskegon
Bradshaw, Park S.....Muskegon
Cavanagh, R. G.....Muskegon
Chapin, William S...Muskegon Heights
Closz, H. F.....Muskegon
Cohan, Sol G.....Muskegon
Colignon, C. M.....Muskegon
Collier, C. C.....Whitehall
D'Alcorn, Ernest .....Muskegon
Dasler, A. F.....Muskegon Heights
Derezinski, Clement F.....Muskegon
Diskin, Frank.....Muskegon
Douglas, Robert .....Muskegon
Drummon, S. J.....Casnovia
Durham, C. J.....Muskegon
Dykhuisen, Harold D.....Muskegon
Eckerman, C. T.....Muskegon
Fillingham, Enid .....Muskegon
Fleischman, C. B.....Muskegon
Fleishman, Norman.....Muskegon
Foss, Edward O.....Muskegon
Garber, F. W., Jr.....Muskegon
Garland, J. O.....Muskegon
Gillard, James .....Muskegon
Goltz, Martha H.....Montague
Hannum, F. W.....Muskegon
Harrington, A. F.....Muskegon
Harrington, R. J.....Muskegon
Hartwell, S. W.....Muskegon
Heneveld, John.....Muskegon
Holly, Leland E.....Muskegon
Holmes, Roy H.....Muskegon
Jackson, S. A.....Muskegon
Kane, Thomas J.....Muskegon
Keilin, Marie .....Muskegon
Kerr, H. J.....Muskegon
Kniskern, E. L.....Muskegon
LaCore, O. M.....Muskegon Heights
Lange, E. W.....Muskegon
Lauretti, Emil.....Muskegon
Laurin, V. Samuel.....Muskegon
LeFevre, George L.....Muskegon
LeFevre, Louis .....Muskegon
LeFevre, William M.....Muskegon
Loomis, John L.....Muskegon
Loughery, H. B.....Muskegon
Mandeville, C. B.....Muskegon
Medema, Paul E.....Muskegon
Meengs, M. B.....Muskegon Heights
Miller, Philip L.....Muskegon
Morford, F. N.....Muskegon
Morse, Bertram W.....Whitehall
Mulligan, A. W.....Muskegon
Oden, Constantine L.....Muskegon
Olson, R. G.....Muskegon Heights
Pangerl, Carl .....Muskegon Heights
Pettis, Emmett.....Muskegon
Powers, Lunette .....Muskegon
Price, Leonard.....Muskegon
Pyle, H. J.....Muskegon
Risk, R. A.....Muskegon
Risk, Robert D.....Muskegon
Scholle, N. W.....Muskegon
Spoor, A. A.....Muskegon
Stone, Maxwell E.....Muskegon
Swartout, W. C.....Muskegon
Teifer, Charles A.....Muskegon
Thieme, S. W.....Ravenna
Thornton, E. S.....Muskegon
Wilke, C. A.....Montague
Wilson, P. S.....Muskegon

Newaygo County

Barnum, W. H.....Fremont
Benjamin, Clayton C.....Grant
Deur, T. R.....Grant
Geerlings, Lambert .....Fremont
Geerlings, Lewis J.....Fremont
Geerlings, Willis .....Fremont
Gordon, B. F.....Newaygo
Johnstone, K. T.....Grant
Lettinga, D.....Grant
Moore, H. R.....Newaygo
Sears, Richard .....Fremont
Stryker, O. D.....Fremont
Tompsett, Arthur C.....Hesperia

Northern Michigan

(Antrim-Charlevoix-Cheboygan-Emmet Counties)

Atkinson, C. F.....Indian River
Beuker, Bernard .....East Jordan
Blum, Benjamin B.....Petoskey
Burns, Dean C.....Petoskey
Chapman, Wallace M.....Charlevoix
Chapman, Willis Earle.....Cheboygan
Christie, Edward A.....Cheboygan
Conkle, Guy C.....Boyne City
Conti, Joseph.....Petoskey
Conway, William S.....Petoskey
Dean, Carleton .....Lansing
Duffie, Don Hastings....Central Lake
Engle, Ralph D.....Petoskey
Frank, Gilbert E.....Harbor Springs
Grillet, F. F.....Alanson
Harrington, H. M.....East Jordan
Larson, Walter E.....Levering
Lashmet, Floyd H.....Petoskey
Litzenburger, A. F.....Boyne City
Maksim, George.....Petoskey
Mast, W. H.....Petoskey
Mayne, Frederick C.....Cheboygan
McCarroll, James C.....Cheboygan
McCune, William Stanley....Petoskey
McMillan, Fraley.....Charlevoix
Miller, Samuel L.....Cheboygan
Palmer, Russell .....St. James
Parks, W. H.....Petoskey
Reed, Wilbur F.....Cheboygan
Rodgers, John .....Bellaire
Saltonstall, Gilbert B.....Charlevoix
Stringham, J. R.....Cheboygan
Van Dellen, Jerrian.....Ellsworth
Van Leuven, B. H.....Petoskey
Wessels, R. H.....Mancelona
Winter, Joseph A.....Mackinaw City

Oakland County

Abbott, V. C.....Pontiac
Aschenbrenner, Z. R.....Farmington
Baker, Frederick A.....Pontiac
Baker, Robert H.....Pontiac
Barker, Howard B.....Pontiac
Bauer, Ernest W.....Hazel Park
Beattie, W. G.....Ferndale
Beck, Otto O.....Birmingham
Benning, C. H.....Royal Oak
Borland, Alexander .....Pontiac
Boucher, R. E.....Royal Oak
Bradley, Everett L.....Pontiac
Burke, Chauncey G.....Pontiac
Burt, F. J.....Holly
Butler, Samuel A.....Pontiac
Christie, J. W.....Pontiac
Church, J. E.....Pontiac
Cobb, Leon F.....Pontiac
Cooper, Robert J.....Pontiac
Cottrell, Martha S.....Novi
Couchman, Boyd .....Royal Oak
Crissman, Harold C.....Ferndale
Cudney, Ethan B.....Pontiac
Dahlgren, Carl.....Keego Harbor
Darling, C. G., Jr.....Pontiac
Ekelund, Clifford T.....Pontiac
Farnham, Lucius Augustine....Pontiac
Faulconer, Albert .....Rochester
Ferris, Ralph G.....Brimingham
Fitzpatrick, Francis .....Pontiac
Flick, John R.....Royal Oak
Foust, Earl W.....Hazel Park
Fox, John W.....Pontiac
Furlong, Harold A.....Pontiac
Gariepy, Bernard F.....Royal Oak
Gatley, C. R.....Pontiac
Gatley, L. Warren.....Pontiac
Geib, Ormond D.....Rochester
Gerls, Frank B.....Pontiac
Gill, Matthew J.....Pontiac
Gordon, J. H.....Birmingham
Grant, William A.....Milford
Green, William M.....Pontiac
Hackett, Daniel Joseph.....Pontiac
Halsted, Lee H.....Farmington
Hammer, Carl W.....Oxford
Hammonds, E. E.....Birmingham
Harris, Landy E.....Pontiac
Harvey, Campbell .....Pontiac
Hassberger, J. B.....Birmingham
Hathaway, Clarence L....Lake Orion
Hathaway, William .....Rochester
Henry, Colonel R.....Ferndale
Howlett, E. V.....Pontiac
Hoyt, D. F.....Pontiac
Hubert, John R.....Pontiac
Huffman, M. R.....Milford
Hume, T. W. K.....Auburn Heights
Hurst, Daniel D.....Pleasant Ridge
Jones, Morrell M.....Pontiac
Kemp, Felix J.....Pontiac
Kemp, W. Lloyd.....Birmingham
Kukuk, M. R.....Pontiac
Lambie, John S.....Pontiac
Lambert, Alvin Gerald.....Ferndale
Larson, B. T.....Pontiac
Lewis, Sol M.....Ferndale
Lockwood, C. E.....Holly
Mackenzie, O. R.....Walled Lake
Margrave, Edmund D.....Royal Oak
Markley, John Martin.....Pontiac
Mason, Robert J.....Birmingham
McConkie, J. P.....Birmingham
McCue, Francis J.....Pontiac
McEvoy, Francis J.....Royal Oak
McNeill, H. H.....Pontiac
Meinke, Herman A.....Hazel Park
Mercer, Frank A.....Pontiac
Miller, Raymond E.....Clarkston
Mitchell, B. M.....Pontiac
Mooney, C. A.....Ferndale
Morrison, J. S.....Royal Oak
Neafie, Charles A.....Pontiac
Newcomb, Arnold B.....Berkley
Norup, John .....Berkley
Ohlmacher, A. P.....Royal Oak
Olsen, Richard E.....Pontiac
Osgood, S. W.....Clawson
Pauli, Theodore H.....Pontiac
Pool, H. H.....Pontiac
Pelletier, Charles J.....Hazel Park
Porritt, Ross J.....Pontiac
Prevette, Isaac C.....Pontiac

Raynale, George P.....Birmingham
Reid, Fred T.....Clawson
Riker, Aaron D.....Pontiac
Roehm, Harold R.....Birmingham
Rooks, Wendell H.....Pontiac
Russell, Vincent P.....Royal Oak
St. John, Harold A.....Pontiac
Schirack, Ray.....Royal Oak
Schoenfeld, John B.....Birmingham
Seaborn, A. J.....Royal Oak
Sheffield, L. C.....Pontiac
Sherman, G. A.....Pontiac
Sibley, H. A.....Pontiac
Simpson, E. K.....Pontiac
Smith, Carleton A.....Pontiac
Smith, Donald S.....Pontiac
Spears, M. L.....Pontiac
Spencer, Lloyd H.....Royal Oak
Spoehr, Eugene L.....Ferndale
Spohn, Earl W.....Royal Oak
Stahl, Harold F.....Oxford
Stanley, Arthur L.....Ferndale
Stanley, William F.....Ferndale
Starker, Clarence T.....Pontiac
Steinberg, Norman.....Royal Oak
Stolpman, A. K.....Birmingham
Sutton, Palmer E.....Royal Oak
Terry, Stuart .....Pontiac
Tuck, Raymond G.....Pontiac
Uloth, Milton J.....Ortonville
Wagley, P. V.....Pontiac
Wagner, Ruth E.....Royal Oak
Weinberger, Herbert .....Pontiac
Williams, H. W.....Pontiac
Yoh, Harry B.....Pontiac
Young, Arthur R.....Pontiac

Oceana County

Day, Clinton.....Hart
Flint, Charles.....Hart
Hayton, A. R.....Shelby
Heard, William.....Pentwater
Heysett, Norman W.....Fort Wayne
Jensen, Viggo.....Shelby
Lemke, Walter M.....Shelby
Munger, L. P.....Hart
Nicholson, John H.....Hart
Reetz, Fred A.....Shelby
Robinson, W. Gordon.....Hart
Wood, Merle G.....Hart

Ontonagon County

Bender, Jesse L.....Mass
Evans, Edwin J.....Ontonagon
Hogue, H. B.....Ewen
McHugh, Frank W.....Ontonagon
Rubinfeld, S. H.....Ontonagon
Shale, R. J.....Ontonagon
Strong, W. F.....Ontonagon
Whiteshield, C. F.....Trout Creek

O-M-C-O-R-O

(Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw Counties)

Beeby, R. J.....West Branch
Clippert, C. G.....Grayling
Coulter, Keith Douglas.....Gladwin
Crandell, C. H.....West Branch
Drescher, George A.....Lewiston
Egle, Joseph L.....Gaylord
Ford, Ruey O.....Gaylord
Harris, Levi A.....Gaylord
Hendricks, Henning V.....Kalkaska
Inman, John.....Kalkaska
Jardine, Hugh M.....West Branch
Keyport, C. R.....Grayling
LaPorte, Lawrence A.....Gladwin
Martzowka, M. A.....Roscommon
McDowell, A. S.....West Branch
McDowell, Douglas B.....West Branch
McKillop, G. L.....Gaylord
Peckham, Richard C.....Gaylord
Sargent, Leland E.....Kalkaska
Skinner, Edward F.....Gaylord
Stealy, Stanley.....Grayling
Thompson, Sue H.....West Branch
Timreck, Harold.....Beaverton

Ottawa County

Beernink, E. H.....Grand Haven
Bloemendaal, D. C.....Zeeland
Bloemendal, W. B.....Grand Haven
Boone, Cornelius E.....Zeeland
Bos, G. D.....Holland
Coburn, Milan.....Coopersville
DeVries, H. C.....Holland
De Witt, S. L.....Grand Haven
DeYoung, Fred.....Spring Lake
Harms, H. P.....Holland
Huizinga, John G.....Holland
Irvin, Harry C.....Holland
Kemme, Gerrit.....Zeeland
Kools, William Clarence ....Holland
Leenhouts, Abraham.....Holland
Long, C. E.....Grand Haven
Nichols, Rudolph H.....Holland
Nykamp, Russell.....Zeeland
Presley, William J.....Grand Haven
Rypkema, Willard M.....Grand Haven
Stickley, A. E.....Coopersville
Tappan, W. M.....Holland
Ten Have, Ralph.....Grand Haven
Timmerman, E. C.....Coopersville
Van Appledorn, Chester J.....Holland
Ver Duin, J.....Grand Haven
Van Der Berg, E.....Holland
Van der Velde, O.....Holland
Wells, Kenneth.....Spring Lake
Westrate, William.....Holland
Wiersma, Silas C.....Hudsonville
Winter, John K.....Holland
Winter, William G.....Holland

Saginaw County

Ackerman, Gerald L.....Saginaw
Anderson, W. K.....Saginaw
Bagley, U. S.....Saginaw
Bagshaw, David E.....Saginaw
Bennett, R. B.....St. Charles
Berberovich, T. F.....Saginaw
Bishop, H. M.....Saginaw
Brender, Fred P. .....Frankenmuth
Brock, W. H.....Saginaw
Busch, Frank J.....Saginaw
Butler, M. G.....Saginaw
Button, A. C.....Saginaw
Cady, F. J.....Saginaw
Calomeni, Anthony D.....Saginaw
Cameron, Allen K.....Saginaw
Campbell, L. A.....Saginaw
Catizone, R. J.....Merrill
Clark, Wilbert B.....Saginaw
Claytor, Archer A.....Saginaw
Cortopassi, Andre.....Saginaw
Cortopassi, V. E.....Saginaw
Cory, C. W.....Saginaw
Curts, James.....Saginaw
Durman, Donald C.....Saginaw
Ely, C. W.....Saginaw
Ernst, Arthur Randolph.....Saginaw
Eymer, Esther.....Saginaw
Fleschner, Thomas E.....Birch Run
Freeman, Frederick W.....Saginaw
Gaga, David P.....Saginaw
Galsterer, Edwin C.....Saginaw
Goman, Louis D.....Saginaw
Grigg, Arthur.....Saginaw
Grigg, Arthur P.....Saginaw
Hand, Eugene .....Saginaw
Harvie, L. C.....Saginaw
Helmkamp, Herbert C.....Saginaw
Hester, E. G.....Saginaw
Hill, Victor L.....Saginaw
Hohn, Fred J.....Saginaw
Jaenichen, R.....Saginaw
James, J. W.....Saginaw
Jiroch, R. S.....Saginaw
Jordan, Leo A.....Saginaw
Keller, S. S.....Saginaw
Kemp, J. M.....Saginaw
Kempton, R. M.....Saginaw
Kirchgeorg, Clemens G...Frankenmuth
Kleekamp, H. G.....Saginaw
Knott, Harriet A.....Saginaw
Leitch, Arthur E.....Saginaw
Ling, Ernest M.....Hemlock
Lohr, O. W.....Saginaw
Longstreet, Martha L.....Saginaw
Luger, F. E.....Saginaw
Lurie, Robert.....Saginaw
MacKinnon, Edwin D.....Saginaw
MacMeekin, James Ware.....Saginaw
Martzowka, William P.....Saginaw
Maurer, John A.....Saginaw
Mayne, Harold.....Saginaw
McClinton, N. F.....Saginaw
McGregor, R.....Saginaw
McKinney, Alex. R.....Saginaw
McLandress, Joshua A.....Saginaw
Meyer, Henry J.....Saginaw
Moon, A. R.....Saginaw
Morris, Keith M.....Saginaw
Mudd, Richard D.....Saginaw
Murphy, Albert P.....Saginaw
Murray, Charles R.....Saginaw
Novy, F. O.....Saginaw
O'Reilly, William J.....Saginaw
Ostrander, Frank W.....Freeland
Phillips, Homer A.....Saginaw
Pietz, Frederick.....Saginaw
Pillsbury, Edward A.....Frankenmuth
Poole, Frank A.....Saginaw
Potvin, Clifford D.....Saginaw
Richards, Ned R.....Saginaw
Richter, Harry J.....Saginaw
Ryan, M. D.....Saginaw
Sample, J. T.....Saginaw
Schaiberger, Elmer.....Saginaw
Sheldon, S. A.....Saginaw
Slack, W. K.....Saginaw
Stander, A. C.....Saginaw
Stolz, Harold F.....Saginaw
Test, Frederick C.....Saginaw
Thomas, Dale.....Saginaw
Thompson, A. B.....Saginaw
Tiedke, G. E.....Saginaw
Toshach, C. E.....Saginaw
Wallace, Herbert C.....Saginaw
Wheeler, Dorothy .....Saginaw
Wilson, H. Roy.....Saginaw
Wixted, John F.....Chesaning
Wixted, Julia L.....Chesaning
Yntema, S.....Saginaw

Shiawassee County

Alexander, Reuben G.....Laingsburg
Arnold, Alfred L., Jr.....Owosso
Arnold, A. L., Sr.....Owosso
Bates, L. F.....Durand
Brandel, J. M.....Owosso
Brown, Richard J.....Owosso
Buzzard, Walter Davenport..Chesaning
Carney, Edward J.....Durand
Cramer, George L. G.....Owosso
Crane, C. A. .....Corunna
Fillinger, W. B.....Ovid
Greene, I. W.....Owosso
Haviland, James J.....Owosso
Hume, Arthur M.....Owosso
Hume, Harold A.....Owosso
Janci, Julius.....Owosso
Kaufman, H. J.....Owosso
Linden, V. E.....Durand
McKnight, E. R. .....Owosso
Parker, W. T. .....Owosso
Pochert, R. C.....Owosso
Richards, C. J.....Durand
Sackrider, George P.....Owosso
Shepherd, W. F.....Owosso
Slagh, E. M.....Elsie
Soule, Glenn T.....Henderson
Stewart, George W.....Owosso
Watts, Fred A.....Owosso
Weinkauf, W. F.....Corunna
Wilcox, Anna L.....Owosso
Wilcox, C. M.....Owosso

St. Clair County

Armsbury, A. B.....Marine City
Atkinson, J. M.....Port Huron
Attridge, J. A.....Port Huron
Battley, J. C. Sinclair....Port Huron
Biggar, R. J.....Port Huron
Borden, C. L.....Yale
Boughner, W. H.....Algonac
Bovee, M. E.....Port Huron
Brush, Howard O.....Port Huron
Burke, Ralph M.....Port Huron
Burley, Jacob H.....Port Huron
Callery, A. L.....Port Huron
Campbell, R. H.....St. Clair
Carney, F. V.....St. Clair
Clyne, B. C.....Yale
Cooper, T. H.....Port Huron
DeGurse, T. E.....Marine City
Derck, W. P.....Marysville
Engelman, A. A.....St. Clair
Falk, Edwin Carl.....Algonac
Fraser, Robert C.....Port Huron
Heavenrich, Theodore F...Port Huron
Holcomb, R. J.....Marine City
Kesl, George Matthew....Port Huron
Le Galley, K. B.....Port Huron
Licker, R. R.....Port Huron
Ludwig, F. E.....Port Huron
McCue, Christopher.....Goodells
MacPherson, C. A.....St. Clair
Martin, C. S.....Port Huron
McColl, D. J.....Port Huron
McColl, Neil J.....Port Huron
Meredith, E. W.....Port Huron
Patterson, D. Webster....Port Huron
Pollock, Donald A.....Yale
Reynolds, Annie E.....Port Huron
Ryerson, W. W.....Port Huron
Schaefer, W. A.....Port Huron
Sites, E. C.....Port Huron
Smith, O. Reginald.....Port Huron
Thomas, C. F.....Port Huron
Treadgold, Douglas.....Port Huron
Vroman, M. E.....Port Huron
Waltz, J. F.....Capac
Ware, John R.....Port Huron
Wass, Henry C.....St. Clair
Waters, George.....Port Huron
Wellman, Joseph E.....Port Huron
Wight, William G.....Yale
Witter, Gordon L.....Port Huron
Zemmer, A. L.....Port Huron

St. Joseph County

Berg, Lawrence A.....Centerville
Brunson, A. E.....Colon
Buell, Martin .....Sturgis
Fiegel, S. A.....Sturgis
Fortner, F. J.....Three Rivers
Hoekman, Aben.....Constantine
Holm, Arvid G.....Three Rivers
Kane, David M.....Sturgis
Miller, C. G.....Sturgis
O'Dell, John H.....Three Rivers
Parrish, Marion F.....Sturgis
Pennington, H. C.....White Pigeon
Raisch, Fred J.....White Pigeon
Reed, Fred R.....Three Rivers
Rice, John W.....Sturgis
Shaw, G. D.....Mendon
Sheldon, J. P.....Sturgis
Slote, L. K.....Constantine
Springer, R. A.....Centerville
Sweetland, G. J.....Constantine
Wilkerson, Nina C.....Sturgis
Zimont, R. D.....Constantine

Tuscola County

Barbour, Harry A.....Mayville
Bates, George.....Kingston
Berman, Harry .....Millington
Brazer, John.....Omaha, Neb.
Cook, Raymond.....Akron
Dickerson, Willert W.....Wahjamega
Dixon, Robert L.....Wahjemega
Donahue, H. Theron.....Cass City
Fischer, Robert E.....Mayville
Flett, Richard O.....Millington
Fox, Denton B.....Gagetown
Gugino, Frank James.....Reese
Hoffman, T. E.....Vassar
Howlett, R. R.....Caro
Johnson, O. G.....Mayville
Kaven, G. H.....Unionville
Kralick, Louise C.
.....Hasbrouck Hts., N. J.
MacRae, L. D.....Gagetown
Maurer, J. G.....Reese
Merrill, Elmer H.....Caro
Morris, Frank L.....Cass City
Petrie, William.....Caro
Ross, Alexander T.....Wahjamega
Rundell, Annie Stevens.....Vassar
Ruskin, D. B.....Wahjamega
Savage, Lloyd L.....Caro
Spohn, U. G.....Fairgrove
Starmann, Bernard.....Cass City
Swanson, E. C.....Vassar
Vail, Harry F.....Unionville
Von Renner, Otto.....Vassar

Van Buren County

Boothby, F. M.....Lawrence
Bope, William P.....Decatur
Buckborough, M. W.....South Haven
Diephuis, Bert .....South Haven
French, Merle R.....Paw Paw
Gano, Avison.....Bangor
Giddings, Ralph R.....Bloomingdale
Giffin, John R.....Bangor
Greenman, Newton H.....Decatur
Hall, E. J.....Hartford
Hoyt, W. F.....Paw Paw
Itzen, J. F.....South Haven
Kingma, J. G.....Decatur
Laird, Emma.....Paw Paw
Lowe, Edwin G.....Bangor
Maxwell, J. Charles.....Paw Paw
McNabb, A. A.....Lawrence
Murphy, Norman D.....Bangor
Riley, G. M.....Gobles
Sayre, Phillip P.....South Haven
Spalding, R. W.....Gobles
Steele, Arthur H.....Paw Paw
TenHouten, Charles.....Paw Paw
Terwilliger, Edwin.....South Haven
Wilkinson, Chester A.....Kendall
Williams, F. N.....Hartford
Young, William R.....Lawton

Washtenaw County

Adams, James F.....Ann Arbor
Alexander, John .....Ann Arbor
Badgley, C. E.....Ann Arbor
Barbour, Fleming A.....Ann Arbor
Barker, Paul.....Ann Arbor
Barnwell, John B.....Ann Arbor
Barss, Harold D.....Ypsilanti
Bassow, Paul H.....Ann Arbor
Beebe, Hugh M.....Ann Arbor
Bell, Margaret.....Ann Arbor
Belote, G. H.....Ann Arbor
Belser, Walter .....Ann Arbor
Brace, William M.....Ann Arbor
Breakey, James R.....Ypsilanti
Britton, H. B.....Ypsilanti
Brown, Phillip .....Ypsilanti
Bulmer, Dan J.....Ann Arbor
Buscaglia, C. J.....Ypsilanti
Camp, Carl Dudley.....Ann Arbor
Clements, Glenn T.....Ann Arbor
Coller, Frederick A.....Ann Arbor
Conn, Jerome W.....Ann Arbor
Coxon, Alfred W.....Ann Arbor
Cummings, H. H.....Ann Arbor
Curtis, Arthur C.....Ann Arbor
Davis, Fenmore E.....Ann Arbor
De Jong, Russell.....Ann Arbor
De Tar, John S.....Milan
Dick, Vernon S.....Ann Arbor
Donaldson, S. W.....Ann Arbor
Dowman, Charles E.....Ann Arbor
Dunstone, H. C.....Ypsilanti
Emerson, Herbert W.....Ann Arbor
Everett, Meldon.....Ann Arbor
Failing, Joseph H.....Ann Arbor
Field, Henry, Jr.....Ann Arbor
Folsome, Clair Edwin.....Ann Arbor
Forsythe, Warren E.....Ann Arbor
Fralick, F. Bruce.....Ann Arbor
Freyberg, Richard H.....Ann Arbor
Frolich, Moses M.....Ann Arbor
Furstenberg, Albert C.....Ann Arbor
Ganzhorn, Edwin.....Ann Arbor
Gardiner, Sprague.....Baltimore, Md.
Gates, John L.....Ann Arbor
Gates, Neil A.....Ann Arbor
Gulde, Andros.....Chelsea
Hagerman, George W.....Ann Arbor
Hammond, W. W.....Plymouth
Hannum, M. R.....Milan
Harris, Bradley M.....Ypsilanti
Harris, H. W.....Ann Arbor
Harvill, T. Haynes.....Ann Arbor
Helper, Morton.....Ann Arbor
Healey, Claire E.....Ann Arbor
Henry L. Dell.....Ann Arbor
Hessler, Harvey W.....Ann Arbor
Haynes, Harley A.....Ann Arbor
Hiinler, Leonard E.....Ann Arbor
Hodges, Fred J.....Ann Arbor
Howard, S. C.....Ann Arbor
Isaacs, Raphael.....Ann Arbor
Jackson, Howard C.....Ann Arbor
Jimenez, Buenaventura.....Ann Arbor
Johnson, Lester J.....Ann Arbor
Johnson, Vincent C.....Ann Arbor
Jordan, Paul H.....Ann Arbor
Kahn, Edgar A.....Ann Arbor
Keene, Clifford H.....Ann Arbor
Kemper, J. W.....Ann Arbor
Kleinschmidt, Earl E.....Chicago, Ill.
Kleinschmidt, Gladys.....Chicago, Ill.
Klingman, Theophil.....Ann Arbor
Knoll, Leo.....Ann Arbor
Koch, Edward J.....Ann Arbor
La Fever, Sidney L.....Ann Arbor
Lamberson, Frank A.....Ann Arbor
Law, John L.....Ann Arbor
Lerner, Joseph.....Ann Arbor
Lichty, Dorman E.....Ann Arbor
List, Carl F.....Ann Arbor
MacNeal, Perry S.....Ann Arbor
Maddock, Walter G.....Ann Arbor
Malamud, Nathan.....Ann Arbor
Malcolm, Karl D.....Ann Arbor
Marshall, Mark.....Ann Arbor
Martin, Donald W.....Ypsilanti
Maxwell, James H.....Ann Arbor
McEachern, Thomas H.....Ann Arbor
Metzger, Ida.....Ypsilanti
Miller, Harold .....Saline
Miller, Norman F.....Ann Arbor
Myers, Dean W.....Ann Arbor
Nesbit, Reed M.....Ann Arbor
Newburgh, L. H.....Ann Arbor
Oliphant, L. W.....Ann Arbor
Palmer, Alger A.....Chelsea
Patterson, Ralph M.....Ann Arbor
Peet, Max.....Ann Arbor
Peterson, Reuben .....Duxbury, Mass.
Pillsbury, Charles B.....Ypsilanti
Pollard, H. M.....Ann Arbor
Prout, Gordon J.....Saline
Raphael, Theophile.....Ann Arbor
Ratliff, Rigdon K.....Ann Arbor
Ransom, Henry.....Ann Arbor
Robinson, William D.....Ann Arbor
Ross, C. Howard.....Ann Arbor
Ruth, J. Griswold.....Ann Arbor
Sacks, Wilma.....Ann Arbor
Salon, Dayton D.....Ann Arbor
Schumacker, W. E.....Ann Arbor
Seybold, Edward G.....Ann Arbor
Sheldon, John M.....Ann Arbor
Sink, Emory W.....Ann Arbor
Smalley, Marianna.....Ann Arbor
Snow, Glenadine.....Ypsilanti

Snow, James S.....Ann Arbor
Solis, Jeanne C.....Ann Arbor
Soller, M. E.....Ypsilanti
Steiner, L. G.....Ann Arbor
Sturgis, Cyrus C.....Ann Arbor
Sundwall, John.....Ann Arbor
Teed, Reed Wallace.....Ann Arbor
Thieme, E. Thurston.....Ann Arbor
Tillman, Richard N.....Ann Arbor
Towsley, Harry A.....Ann Arbor
Vander Slice, David.....Ann Arbor
Waggoner, R. W.....Ann Arbor
Waldron, Alexander M.....Ann Arbor
Wanstrom, Ruth C.....Ann Arbor
Washburne, Charles L.....Ann Arbor
Wessinger, J. A.....Ann Arbor
Wile, Udo J.....Ann Arbor
Williamson, F. B.....Ypsilanti
Wisdom, Inez.....Ann Arbor
Woods, J. J.....Ypsilanti
Work, Walter P.....Ann Arbor
Worth, Melissa H.....Ypsilanti
Wright, Walter J.....Ypsilanti
Wylie, William C.....Dexter
Yoder, O. R.....Ypsilanti

Wayne County

Aaron, Charles D.....Detroit
Abrams, Harry M.....Detroit
Adams, James Robert.....Dearborn
Adelson, Sidney L.....Detroit
Adler, Leopold.....Detroit
Adler, Sidney.....Detroit
Agins, Jacob.....Detroit
Agnelly, Edward J.....Detroit
Agnew, George H.....Detroit
Albrecht, Herman F.....Detroit
Alderman, R. F.....Detroit
Aldrich, E. Gordon.....Detroit
Alford, E. S.....Belleville
Allen, Norman M.....Detroit
Alles, Russell W.....Detroit
Allison, Frank B.....Detroit
Allison, Herbert C.....Detroit
Altemeier, William A.....Detroit
Altman, Raphael.....Detroit
Altshuler, Ira M.....Detroit
Altshuler, Samuel S.....Detroit
Amberg, Emil.....Detroit
Ames, C. C.....Detroit
Amolsch, Arthur L.....Detroit
Amos, Thomas G.....Detroit
Anderson, Bruce.....Detroit
Anderson, J. O.....Detroit
Anderson, Walter L.....Detroit
Anderson, Walter T.....Detroit
Andries, Joseph H.....Detroit
Andries, Raymond C.....Detroit
Angel, John J.....Wayne
Ankley, J. W.....Detroit
Anslow, Robert E.....Detroit
Appel, Phillip R.....Detroit
Appelman, H. B.....Detroit
Arehart, Burke W.....Detroit
Armstrong, Arthur G.....Detroit
Armstrong, Oscar S.....Detroit
Arnold, Effie.....Detroit
Aronstam, Noah E.....Detroit
Ascher, Meyer S.....Detroit
Ashe, Stilson R.....Detroit
Ashley, L. Byron.....Detroit
Ashton, F. B.....Highland Park
Asselin, J. L.....Detroit
Atchison, Russell M.....Northville
Athay, Roland M.....Detroit
Atler, Lawrence R.....Detroit
August, Harry E.....Detroit
Axelson, A. U.....Detroit
Babcock, Kenneth B.....Detroit
Babcock, Myra E.....Detroit
Babcock, W. L.....Detroit
Babcock, W. W.....Detroit
Bach, Walter F.....Detroit
Bachman, Morris E.....Detroit
Bacon, Vinton A.....Detroit
Baeff, Michael A.....Detroit
Bagley, Harry E.....Dearborn
Bailey, Carl C.....Detroit
Bailey, Don A.....Detroit
Bailey, Louis J.....Detroit
Baker, Clarence.....Detroit
Bakst, Joseph.....Detroit
Balaga, F. T.....Detroit
Balcerski, Matthew A.....Detroit
Ballard, Charles S.....Detroit
Balser, Charles W.....Detroit
Baltz, James I.....Detroit
Barker, F. Marion.....Grosse Point
Barnes, Donald J.....Detroit
Barnett, Louis.....Detroit
Barnett, Saul E.....Detroit
Barrett, Wyman D.....Detroit
Bartmeier, Leo H.....Detroit
Barton, J. R.....Detroit
Bates, Gaylord S.....Detroit
Bauer, A. Robert.....Detroit
Bauer, Lester Eugene.....Detroit
Baugh, R. H.....Detroit
Baumann, W. L.....Detroit
Baumer, Moe.....Detroit
Baumgarten, Elden C.....Detroit
Bayles, John G.....Detroit
Beach, Watson.....Detroit
Beam, A. Duane.....Detroit
Beaton, Colin.....Detroit
Beattie, Robert.....Detroit
Beaver, Donald C.....Detroit
Beck, Eva F.....Eloise
Becker, Abraham.....Detroit
Becker, Joseph William.....Detroit
Becklein, C. L.....Detroit
Beckwitt, M. C.....Eloise
Bedell, A.....Detroit
Beer, Jos.....Detroit
Beeuwkes, L. E.....Dearborn
Begle, Howell L.....Detroit
Behn, Claud W.....Detroit
Beigler, Sydney K.....Detroit
Belanger, Henry.....Detroit
Bell, J. Kenner.....Detroit
Bell, William M.....Detroit
Bennett, Germany E.....Detroit
Bennett, Harry B.....Detroit
Bennett, William E.....Detroit
Benson, C. D.....Detroit
Benson, Davis A.....Detroit
Benson, Roland R.....Detroit
Bentley, Neil I.....Detroit
Berent, Morris S.....Detroit
Bergo, Howard L.....Detroit
Berke, Sydney S.....Detroit
Berkowitz, William E.....Detroit
Berman, Harry S.....Detroit
Berman, Robert.....Detroit
Berman, Sidney.....Detroit
Berman, Sidney.....Detroit
Bernard, Walter G.....Detroit
Bernath, Gerald J.....Detroit
Bernbaum, Bernard.....Detroit
Bernfield, Martin.....Detroit
Bernstein, Albert E.....Detroit
Bernstein, Samuel S.....Detroit
Bertram, B.....Detroit
Besancon, J. H.....Detroit
Best, T. H. Edward.....Detroit
Bevington, Harry G.....Detroit
Bicknell, Edgar A.....Detroit
Bicknell, Frank B.....Detroit
Biddle, Andrew P.....Detroit
Birch, John R.....Detroit
Birkelo, Carl C.....Detroit
Bittrich, Norbert M.....Detroit
Black, Perry S.....Detroit
Blaess, Marvin J.....Detroit
Blain, Alex W., Jr.....Detroit
Blaine, Max.....Detroit
Blair, K. E.....Detroit
Blanchard, Fred N.....Detroit
Blashill, James B.....Detroit
Bleier, Joseph.....Detroit
Bloch, Abraham.....Detroit
Blodgett, William E.....Detroit
Bloom, Arthur R.....Detroit
Bloomer, Earl.....Dearborn
Blumenthal, Franz L.....Detroit
Boccia, James J.....Detroit
Boehm, John D.....Detroit
Boell, Arthur F.....Detroit
Bohn, Stephen.....Detroit
Boland, J. Rolland.....Detroit
Boles, A. E.....Detroit
Bookmyer, R. H.....Detroit
Bovill, Edwin G.....Detroit
Bower, Franklin T.....Detroit
Bowers, Leo J.....Detroit
Bowman, Frank E.....Detroit
Boyd, John H.....Detroit
Brachman, D. S.....Detroit
Bracken, Andrew H.....Dearborn
Bradshaw, William H.....Detroit
Braley, Alson E.....Detroit
Braley, William N.....Detroit
Bramigk, F. W.....Detroit
Branch, Hira E.....Flint
Brancheau, L. T.....New Boston
Brand, Benjamin.....Detroit
Brando, Russell G.....Detroit
Brandt, Edward L.....Detroit
Braun, Lionel.....Detroit
Breitenbecher, Edward R.....Detroit
Brennan, Thomas J.....Detroit
Breon, Guy L.....Detroit
Brengle, Deane R.....Detroit
Briegel, Walter A.....Detroit
Brines, O. A.....Detroit
Bringard, Elmer L.....Detroit
Brisbois, Harold J.....Plymouth
Brodersen, Harvey S.....River Rouge
Bromme, William.....Detroit
Brooks, A. L.....Detroit
Brooks, Clark D.....Detroit
Brooks, Charles W.....Detroit
Brosius, William L.....Detroit
Brough, Glen A.....Detroit
Brown, A. O.....Detroit
Brown, Carlton F.....Detroit
Brown, Gordon T.....Detroit
Brown, Harvey F.....Detroit
Brown, Henry S.....Detroit
Brown, John R.....Detroit
Brown, Stanley H.....Detroit
Brown, Thomas A.....Detroit
Brownell, Paul G.....Detroit
Brunk, Andrew S.....Detroit
Brunk, C. F.....Detroit
Brunke, Bruno B.....Detroit
Bryce, John D.....Detroit
Buchanan, W. Paul.....Detroit
Buell, Charles E., Jr.....Detroit
Buesser, Frederick G.....Detroit
Buller, H. L.....Detroit
Bullock, Earl S.....Detroit
Bunting, John W.....Dearborn
Burgess, Jay M.....Detroit
Burgess, Charles M.....Detroit
Burgess, Josephus M.....Northville
Burns, Robert T.....Detroit
Burnside, Howard B.....Detroit
Burnstine, Julius Y.....Detroit
Burnstine, Perry P.....Detroit
Burr, George C.....Detroit
Burrows, Howard A.....Dearborn
Burstein, Harry S.....Detroit
Burstein, I. Marvin.....Detroit
Burstein, Morris M.....Detroit
Bush, Glendon J.....Detroit
Bush, Lowell M.....Detroit
Buss, John A.....Detroit
Butler, Harry J.....Detroit
Butler, L. H.....Detroit
Butler, Volney N.....Detroit
Butterworth, Herman K.....Lincoln Park
Buttram, Edward J.....Detroit
Butz, Paul W.....Plymouth
Byington, Garner M.....Detroit
Cadieux, Henry W.....Detroit
Caldwell, J. Ewart.....Detroit
Calkins, H. N.....Detroit
Callaghan, T. T.....Detroit
Campau, George H.....Detroit
Campbell, Don M.....Detroit
Campbell, Duncan.....Detroit
Campbell, Malcolm D.....Detroit
Campbell, Mary B.....Detroit
Candler, Clarence L.....Detroit
Canter, Gayle E.....Detroit
Caplan, Leslie.....Detroit
Caraway, James E.....Wayne
Carey, Benjamin W.....Detroit
Carey, Cornelius.....Detroit
Carleton, L. H.....Detroit
Carlucci, Peter F.....Detroit
Carmichael, E. K.....Detroit
Carp, Joseph.....Detroit
Carpenter, C. H.....Detroit
Carpenter, C. J.....Detroit
Carr, J. G.....Detroit
Carroll, E. H.....Detroit
Carroll, Lona B.....Detroit
Carson, Herman J.....Detroit
Carstens, Henry R.....Detroit
Carter, John M.....Detroit
Carter L. F.....Detroit
Cassidy, William J.....Detroit
Castrop, C. W.....Dearborn
Cathcart, Edward.....Detroit
Catherwood, Albert E.....Detroit
Caughey, Manley D.....Detroit
Cetlinski, C. A.....Hamtramck
Chall, Henry G.....Detroit
Chance, J. H.....Detroit
Chapman, Aaron L.....Detroit
Chapman, Everett L.....Detroit
Chapnick, H. A.....Detroit
Chase, Clyde H.....Detroit
Chatel, Arthur N.....Detroit
Chene, George C.....Detroit

Chester, W. P.....Detroit
Chesluk, H. M.....Detroit
Chittenden, George E.....Detroit
Chittick, William R...San Diego, Calif.
Chostner, G. C.....Detroit
Christensen, C. A.....Dearborn
Christopoulos, D. G.....Detroit
Chrouch, Laurence A.....Detroit
Ciprian, Joseph E.....Detroit
Clark, Benjamin W.....Detroit
Clark, C. M.....Detroit
Clark, Donald V.....Detroit
Clark, George E.....Detroit
Clark, Harry G.....Detroit
Clark, Harry L.....Detroit
Clark, Raymond L.....Detroit
Clarke, Emilie Arnold.....Detroit
Clarke, George L.....Detroit
Clarke, Niles A.....Detroit
Clarke, Norman E.....Detroit
Clausen, Claire H.....Dearborn
Clifford, Charles H.....Detroit
Clifford, Thomas P.....Detroit
Clippert, J. C.....Grosse Ile
Coan, Glenn L.....Wyandotte
Coates, Carl Amos.....Dearborn
Cobane, John H.....Detroit
Cochrane, Edgar G.....Detroit
Cohn, Daniel E.....Detroit
Cohoe, Don A.....Detroit
Cole, Fred H.....Detroit
Cole, James E.....Detroit
Coleman, Margarete W.....Detroit
Coll, Howard R.....Detroit
Collins, A. N.....Detroit
Collins, Edmund F.....Detroit
Collins, James D.....Detroit
Colvin, Leslie T.....Detroit
Colyer, Raymond G.....Detroit
Condit, L. Irving.....Detroit
Conn, Raymond W.....Detroit
Connelly, Basil L.....Detroit
Connelly, Richard C.....Detroit
Connolly, Frank.....Detroit
Connor, Guy L.....Detroit
Connors, J. J.....Detroit
Conrad, E. R.....Detroit
Cooksey, Warren B.....Detroit
Cooley, Thomas B.....Detroit
Coolidge, Maria Belle..Grosse Pt. Park
Cooper, E. L.....Detroit
Cooper, James B.....Detroit
Cope, H. E.....Lansing
Corbeille, Catherine.....Detroit
Corhett, John J.....Detroit
Coseglia, Robert P.....Detroit
Cosgrove, William J.....Detroit
Costello, Russell T.....Detroit
Cothran, Robert M.....Detroit
Cotruro, L. D.....Detroit
Coucke, Henry O.....Detroit
Coulter, William J.....Detroit
Cowan, Angus L.....Detroit
Cowan, Wilfred.....Detroit
Cowen, Robert L.....Detroit
Craig, Henry R.....Eloise
Crane, Langdon T.....Highland Park
Crawford, Albert S.....Detroit
Cree, Walter J.....Detroit
Crews, Thomas H.....Detroit
Croll, L. J.....Detroit
Crossen, Henry F.....Detroit
Croushore, J. E.....Detroit
Cruikshank, Alexander.....Detroit
Curhan, Joseph Howard.....Detroit
Curry, F. S.....Detroit
Curtis, Frank E.....Detroit
Cushman, H. P.....Detroit

D'Alleva, A. J.....Detroit
Damitz, John C.....Detroit
Dana, Harold M.....Detroit
Danforth, J. C.....Detroit
Danforth, Mortimer E.....Detroit
Darling, Milton A.....Detroit
Darpin, Peter H.....Detroit
Davidow, David M.....Detroit
Davidson, Harry O.....Detroit
Davies, Thomas S.....Detroit
Davies, Windsor S.....Detroit
Davis, Egbert F.....Detroit
Davis, James E.....Detroit
Davis, Lindon Lee.....Detroit
Dawson, F. E.....Detroit
Dawson, W. A.....Detroit
Day, J. Claude.....Detroit
Defever, Cyril R.....Detroit
Defnet, William A.....Detroit
DeHoratiis, Joseph.....Detroit
Demaray, John F.....Detroit
Dempster, James H.....Detroit
DeNike, A. James.....Detroit
Denis, George M.....Detroit
Denison, Louis L.....Detroit
Derby, Arthur P.....Detroit
Derleth, Paul E.....Detroit
De Spelder, Ray E.....Detroit
DeTomasi, Rome .....Detroit
DeWitt, A. S.....Detroit
Dibble, Harry F.....Detroit
Dickman, Harry M.....Detroit
Dickson, B. R.....Detroit
Diebel, Nelson W.....Detroit
Diebel, William H.....Detroit
Dill, Hugh L.....Detroit
Dill, J. Lewis.....Detroit
Dittmer, Edwin.....Detroit
Dixon, Fred W.....Detroit
Dixon, Ray S.....Detroit
Dodds, John C.....Detroit
Dodenhoff, C. F.....Detroit
Domzalski, C. A.....Detroit
Donald, William M.....Detroit
Dorsey, John M.....Detroit
Doty, Chester A.....Detroit
Doub, Howard P.....Detroit
Douglas, Bruce H.....Detroit
Douglas, Clair L.....Detroit
Dovitz, Benjamin W.....Detroit
Dowdle, Edward.....Detroit
Dowling, Harvey E.....Detroit
Dowling, Pearl Christie.....Detroit
Downer, Ira G.....Detroit
Doyle, George H.....Detroit
Drake, James J.....Detroit
Drews, Robert S.....Detroit
Drolshagen, E. A.....Detroit
Droock, Victor.....Detroit
Droste, Arnold T.....Dearborn
Drummond, Donald L.....Detroit
Dubin, Joseph J.....Dearborn
Dubnove, Aaron.....Detroit
DuBois, Paul W.....Detroit
Dubpernell, Karl.....Detroit
Dubpernell, Martin S.....Detroit
Ducey, Edward F.....Detroit
Duffy, Edward A.....Detroit
Dundas, E. M.....Detroit
Dunlap, Henry A.....Detroit
Dunn, Cornelius E.....Detroit
Durocher, Edmund J.....Ecorse
Dutchess, Charles E.....Detroit
Dwaihy, Paul.....Detroit
Dwyer, Francis.....Detroit
Dysarz, T. T.....Detroit
Dziuba, John F.....Detroit

Eakins, Frederick J.....Dearborn
Eaton, Crosby D.....Detroit
Edgar, Russell G.....Detroit
Eder, Joseph R.....Detroit
Edgar, Irving I.....Detroit
Edwards, J. W.....Detroit
Eisman, Clarence H.....Detroit
Elliott, William G.....Detroit
Ellis, Seth W.....Detroit
Elvidge, Robert J.....Detroit
Ely, Lloyd L.....Glendale, Calif.
Emmert, Herman C.....Detroit
Engel, Earl H.....Wyandotte
Engel, John B.....Detroit
Ensign, Dwight C.....Detroit
Ensing, Osborn.....Detroit
Epstein, S. G.....Detroit
Erickson, Milton H.....Eloise
Erkfitz, Arthur W.....Detroit
Erman, Joseph M.....Detroit
Eschbach, Joseph W.....Dearborn
Estabrook, Bert U.....Detroit
Ettinger, Clayton J.....Detroit
Evans, Leland S.....Detroit
Evans, William A.....Detroit
Evans, William A., Jr.....Detroit

Falick, Mordecai Louis.....Detroit
Falk, Ira E.....Detroit
Fandrich, Theodore.....Detroit
Farbman, Aaron A.....Detroit
Fauman, David H.....Detroit
Faunce, Sherman P.....Detroit
Fay, George E.....Detroit
Felcyn, W. George.....Detroit
Feldstein, Martin Z.....Detroit
Fellers, Ray L.....Detroit
Fellman, Abraham R.....Detroit
Fenner, William A.....Detroit
Fenton, E. H.....Detroit
Fenton, Meryl M.....Detroit
Fenton, Russell F.....Detroit
Fenton, Stanley C.....Detroit
Ferguson, Thomas W.....Detroit
Ferrera, Louis V.....Detroit
Fettig, Carl A.....Detroit
Fine, Edward.....Detroit
Finn, Eva M.....Detroit
Fischer, Frederick J.....Detroit
Fisher, O. O.....Detroit
Fisher, R. L.....Detroit
Fitzgerald, E. W.....Detroit
Fitzgerald, James M.....Detroit
Flaherty, H. J.....Detroit
Flaherty, N. W.....Detroit
Flaherty, S. A.....Detroit
Fleming, L. N.....Detroit
Flora, William R.....Detroit
Flower, J. A.....Detroit
Foley, Hugh S.....Dearborn
Font, Anthony J.....Detroit
Foote, James A.....Lincoln Park
Forbes, Edwin B.....Detroit
Ford, F. A.....Detroit
Ford, George A.....Detroit
Ford, Sylvester.....Detroit
Ford, Walter D.....Detroit
Forrester, Alex V.....Detroit
Foster, E. Bruce.....Detroit
Foster, Daniel P.....Detroit
Foster, Linus J.....Detroit
Foster, Owen C.....Detroit
Foster, William L.....Detroit
Foster, W. M.....Detroit
Fowler, William .....Detroit
Frank, M. Nathaniel.....Detroit
Fraser, E. E.....Detroit
Fraser, H. F.....Detroit
Frazer, Mary Margaret.....Detroit
Freedman, John .....Detroit
Freedman, Milton .....Detroit
Freeman, D. K.....Detroit
Freeman, Mabel .....Detroit
Freeman, Wilmer .....Detroit
Freese, John A.....Detroit
Fremont, Joseph C.....Detroit
Freund, Hugo A.....Detroit
Friedlaender, Alex S.....Detroit
Friedman, I. H.....Detroit
Frothingham, George E.....Detroit
Fulgenzi, Andrew A.....Detroit
Fuller, Hugh M.....Grosse Pointe

Gabe, Sigmund .....Detroit
Gaberman, David B.....Detroit
Galantowicz, H. C.....Detroit
Galdonyi, Laslo L.....Detroit
Galerneau, D. B.....Van Dyke
Garbutt, Victor L.....Detroit
Gariepy, L. J.....Detroit
Garner, Howard B.....Detroit
Gaston, Herbert B.....Detroit
Gates, Nathaniel H.....Detroit
Gehrke, August E.....Detroit
Geib, Ledru O.....Detroit
Geiter, Clyde W.....Detroit
Geitz, William A.....Detroit
Gellert, I. S.....Detroit
Gemeroy, J. C.....Detroit
George, A. W.....Detroit
Gerondale, Elmond J.....Detroit
Gigante, Nicola .....Detroit
Gignac, Arthur L.....Detroit
Gillman, R. W.....Detroit
Ginsberg, Harold I.....Detroit
Gittins, Perry C.....Detroit
Glasgow, Gordon K.....Detroit
Glassman, Samuel .....Detroit
Glazer, Walter S.....Detroit
Gleason, John .....Detroit
Glees, J. L.....Detroit
Glick, M. J.....Detroit
Glowacki, B. F.....Detroit
Gmeiner, Clarence C.....Detroit
Goerke, Elmer A.....Detroit
Goetz, Angus G.....Detroit
Goldberg, Arthur .....Detroit
Goldberg, Harry H.....Detroit
Goldberg, Nathan H.....Detroit
Goldin, M. I.....Detroit
Goldman, Perry .....Detroit
Goldsmith, Joseph D.....Detroit
Goldstone, R. R.....Detroit
Gollman, Maurice D.....Detroit
Gonne, William S.....Detroit
Goodrich, B. E.....Detroit
Gordon, Douglas L.....Detroit
Gordon, John W.....Detroit
Gordon, William H.....Detroit
Gorelick, Harry S.....Detroit
Gorning, Raymond P.....Detroit
Gottschalk, Fred W.....Detroit
Gould, S. Emanuel.....Eloise
Goux, R. S.....Detroit
Grace, Joseph M.....Eloise
Grain, Gerald O.....Detroit
Grajewski, Leo E.....Detroit
Gramley, William .....Detroit
Granger, Francis L.....Detroit
Gratton, Henri L.....Detroit
Green, Lewis .....Detroit
Green, Louis M.....Detroit
Green, Sydney H.....Springfield, Mo.
Greenberg, Morris Z.....Detroit
Greenidge, Robert .....Detroit
Greenlee, William Tate.....Detroit

Greiner, Bert A.....Detroit
Grekin, Joseph .....Detroit
Grekin, Samuel L.....Detroit
Grimaldi, G. J.....Detroit
Grob, Otto .....Detroit
Grossman, Sol .....Detroit
Gronow, A. A.....Detroit
Groves, Owen A.....Detroit
Gruber, T. K.....Eloise
Guimaraes, A. S.....Dearborn
Gurdjian, E. S.....Detroit
Gutow, Benjamin R.....Detroit
Haig, D. B.....Detroit
Hale, Arthur S.....Detroit
Hall, Arche C.....Detroit
Hall, E. Walter.....Detroit
Hall, James A. J.....Detroit
Hall, Ralph E.....Detroit
Hall, Robert J.....Detroit
Haluska, Joseph A.....Detroit
H'Amada, Norman K.....Detroit
Hamburger, A. C.....Detroit
Hamil, Brenton M.....Detroit
Hamilton, Stewart .....Detroit
Hamilton, William .....Detroit
Hamilton, William F.....Detroit
Hammer, Charles A.....Detroit
Hammer, Edwin J.....Detroit
Hammond, A. E.....Detroit
Hammond, James L.....Inkster
Hanna, Carl .....Detroit
Hanna, E. Howard.....Detroit
Hanna, Samuel C.....Detroit
Hansen, Frederick E.....Detroit
Hanser, Joshua .....Detroit
Hanson, Frederick N.....Eloise
Hardstaff, R. John.....Detroit
Hardy, George C.....Detroit
Harkins, Henry N.....Detroit
Harley, Louis M.....Detroit
Harm, W. B.....Detroit
Harper, Jesse T.....Detroit
Harrell, Voss .....Detroit
Harris, Harold H.....Detroit
Harrison, Henry .....Detroit
Harrison, Hugh .....Detroit
Harrison, Wesley .....Detroit
Hart, J. Clarence .....Detroit
Hartgraves, Hallie .....Detroit
Hartman, W. B.....Detroit
Hartzell, John B.....Detroit
Hasley, Clyde K.....Detroit
Hasley, Daniel E.....Detroit
Hasner, R. B.....Detroit
Hastings, Orville J.....Detroit
Hause, Glen E.....Detroit
Hauser, I. Jerome.....Detroit
Hauser, John E.....Detroit
Haverstock, Samuel F.....Detroit
Havers, Howard .....Detroit
Hawken, William C.....Detroit
Hawkins, James W.....Detroit
Hayes, Joseph D.....Detroit
Heath, Leonard P.....Detroit
Heath, Parker .....Detroit
Heavner, L. E.....Detroit
Hedrick, Donald W.....Detroit
Heenan, T. H.....Detroit
Heldt, Thomas J.....Detroit
Hendelman, Manuel H.....Detroit
Henderson, J. L.....Detroit
Henderson, Leslie T.....Detroit
Henderson, William E.....Detroit
Henig, Fred .....Detroit
Henry, Thomas J.....Detroit
Herkimer, Dan R.....Lincoln Park
Herrold, Rose E.....Detroit
Hershey, Lynn N.....Detroit
Hewitt, H. W.....Detroit
Hewitt, Leland V.....Detroit
Hewitt, Robert S.....Dearborn
Heyner, Stanley A.....Detroit
Hickey, Joseph .....Detroit
Higbee, Arthur L.....Detroit
Hileman, Lee .....Ecorse
Hillenbrand, A. E.....Detroit
Hillier, L. G.....Detroit
Hilton, William E.....Detroit
Hinko, Edward N.....Plymouth
Hipp, William .....Detroit
Hirschman, L. J.....Detroit
Hochman, Morton M.....Detroit
Hodge, James B.....Detroit
Hoff, E. C.....Detroit
Hoffman, E. S.....Detroit
Hoffman, Henry A.....Detroit
Hoffmann, Martin H.....Eloise
Hollander, A. J.....Detroit
Holmes, Alfred W.....Detroit
Holt, Henry T.....Detroit
Honhart, Fred L.....Detroit
Honor, William H.....Wyandotte
Hoobler, B. Raymond.....Detroit
Hookey, J. A.....Detroit
Hooper, Norman L.....Detroit
Hoops, George B.....Detroit
Hopkins, J. E.....Detroit
Horan, Thomas .....Detroit
Horny, Hugo .....Detroit
Horton, Reece H.....Detroit
Horvath, Louis O.....Detroit
Horwitz, John B.....Detroit
Host, Lawrence N.....Detroit
Hotchkiss, L. .....Farmington
Howard, Austin Z.....Detroit
Howard, Philip J.....Detroit
Howell, Bert F.....Detroit
Howell, Robert .....Eloise
Howes, Willard Boyden.....Detroit
Howlett, Howard T.....Detroit
Hromadko, Louis .....Detroit
Hubbard, John P.....Detroit
Hudson, A. Willis.....Detroit
Hudson, J. Stewart....Grosse Pointe
Hudson, William A.....Detroit
Huegli, Albert G.....Detroit
Huegli. Wilfred A.....Detroit
Huff, Reginald G.....Wayne
Hughes, Albertie A.....Detroit
Hughes, Ray W.....Detroit
Hull, L. W.....Detroit
Hunt, T. H.....Detroit
Hunt, Verne .....Detroit
Hunter, Basil H.....Detroit
Hunter, Elmer N.....Detroit
Husband, Charles W.....Detroit
Hyde, F. W.....Detroit
Iacobell, Peter H.....Detroit
Ignatius, A. A.....Detroit
Insley, Stanley W.....Detroit
Irwin, W. A.....Detroit
Isaacs, Joseph C.....Detroit
Ivkovich, Peter .....Detroit
Jackson, Fred D.....Detroit
Jacoby, Myron D.....Detroit
Jaeger, Grove A.....Detroit
Jaeger, Julius P.....Detroit
Jaekel, C. N.....Detroit
Jaffar, Donald J.....Detroit
Jaffe, J. L.....Detroit
Jaffe, Louis .....Detroit
James, L. Mae.....Detroit
Jahsman, William E.....Detroit
Jamieson, Robert C.....Detroit
Jarre, Hans A.....Detroit
Jarzembowski, Francis D.,.....Detroit
Jarzynka, Frank J.....Detroit
Jasion, Lawrence J.....Detroit
Jend, William J.....Detroit
Jenkins, E. A.....Detroit
Jennings, Alpheus F.....Detroit
Jennings, Robert M.....Eloise
Jentgen, Charles J.....Detroit
Jentgen, L. G.....Detroit
Jodar, E. O.....Detroit
Johnson, Homer L.....Detroit
Johnson, Ralph K.....Detroit
Johnson, R. M.....Detroit
Johnson, Vernon P.....Detroit
Johnson, W. H. M.....Detroit
Johnston, Charles G.....Detroit
Johnston, Everett V.....Detroit
Johnston, J. A.....Detroit
Johnston, John L.....Detroit
Johnston, William E.....Detroit
Johnstone, B. I.....Detroit
Joinville, E. V.....Detroit
Jones, Adrian R.....Detroit
Jones, Arthur J.....Detroit
Jones, H. C.....Detroit
Jones, Roy D.....Detroit
Jonikaitis, Joseph J.....Detroit
Joyce, Stanley J.....Detroit
Judd, C. Hollister.....Detroit
Juliar, Benjamin .....Detroit
Kahn, William W.....Detroit
Kallet, Herbert I.....Detroit
Kallman, David .....Detroit
Kallman, Leo .....Detroit
Kallman, R. Robert .....Detroit
Kaminski, Ladislaus R.....Detroit
Kaminski, Zeno L.....Detroit
Kamperman, George A.....Detroit
Kapetansky, A. J.....Detroit
Kapetansky, Nathan J.....Detroit
Karr, Herbert S.....Detroit
Kasaback, V. Y.....Detroit
Kasper, Joseph A.....Detroit
Kass, J. B.....Detroit
Kates, Simon C.....Detroit
Katzman, I. S.....Detroit
Kay, Harry H.....Detroit
Kazdan, Morris A.....Dearborn
Keane, William E.....Detroit
Kearns, Hubert H.....Detroit
Keating, Thomas F.....Detroit
Kehoe, Henry J.....East Detroit
Kelly, Edward W.....Detroit
Kelly, Frank A.....Detroit
Kemler, Walter J.....Ecorse
Kennary, James M.....Detroit
Kennedy, Charles S.....Detroit
Kennedy, Lester F.....Detroit
Kennedy, Robert B.....Detroit
Kenyon, Fanny H.....Detroit
Kern, W. H.....Garden City
Kernkamp, Ralph .....Eloise
Kersten, Armand G.....Detroit
Kersten, Werner .....Detroit
Keshishian, Sarkis K.....Detroit
Kibzey, Ambrose T.....Detroit
Kidner, Frederick C.....Detroit
Kimbell, David C.....Detroit
Kimberlin, Kenneth K.....Detroit
King, Edward D.....Detroit
King, Melbourne J.....Detroit
Kingswood, Roy C.....Detroit
Kirchner, Augustus .....Detroit
Kirker, J. G.....Detroit
Kirschbaum, Harry M.....Detroit
Klebba, Paul .....Detroit
Klein, Louis.....Nutley, New Jersey
Klein, William .....Detroit
Kleinman, S. .....Detroit
Kline, Starr L.....Detroit
Kloeppel, C. S.....Detroit
Klosowski, Joseph .....Detroit
Klote, M. D.....Detroit
Knaggs, Charles W.....Grosse Pointe
Knaggs, Earl J.....Wyandotte
Knapp, Byron S.....River Rouge
Knobloch, Edmund J. .....Detroit
Knox, Ross M.....Ecorse
Koch, John C.....Detroit
Koebel, R. H.....Detroit
Koessler, George L.....Detroit
Kohn, A. Max.....Detroit
Kohn, M. E.....Detroit
Kokowicz, Raymond J.....Detroit
Kolasa, W. B.....Detroit
Korby, George J.....Detroit
Koss, Frank R.....Dearborn
Kossayda, Adam W.....Detroit
Kovach, Emery P.....Detroit
Kovan, Dennis D.....Detroit
Koven, Abraham .....Detroit
Kozlinski, Anthony E.....Detroit
Kraft, Raymond B.....Detroit
Kraus, John J.....Detroit
Krebs, William T.....Detroit
Kretzschmar, Clarence A.....Detroit
Krieg, Earl G.....Detroit
Krieger, Harley L.....Detroit
Kritchman, M. J.....Detroit
Kroha, Lawrence .....Detroit
Krohn, Albert H.....Detroit
Krynicki, Francis X.....Detroit
Kubanek, Joseph L.....Eloise
Kulaski, Chester H.....Detroit
Kullman, Harold J.....Detroit
Kucmierz, Francis S.....Detroit
Kurcz, J. A.....Detroit
Kwasiborski, S. A.....Wyandotte
Laberge, A. T.....Wyandotte
Laberge, James M.....Wyandotte
La Bine, Alfred C.....Detroit
LaCore, Ivan .....Detroit
La Ferte, Alfred D.....Detroit
Laird, Robert .....Detroit
Lakoff, Charles .....Detroit
Lam, Conrad R.....Detroit
La Marche, N. O.....Detroit
Lampert, Arthur Arno.....Detroit
Lampman, H. H.....Detroit
Lance, Paul E.....Lapeer
Landers, M. B.....Detroit
Landers, Maurice B., Jr.....Detroit
Lange, William A.....Detroit
Laning, George M.....Detroit
Lansky, Mandell .....Detroit
Lapham, Fred E.....Detroit
Larson, John A.....Detroit
Larsson, Bror H.....Detroit
Lasley, James Wm.....Detroit
Latham, Ruth M.....Detroit
Lathron, Philip L.....Detroit
Laub, Stanley V.....Detroit
Lauppe, Edward G.....Detroit
Lauppe, F. A.....Detroit
Law, John H.....Detroit
Leacock, Robert C.....Detroit
Leader, L. R.....Detroit
Leaver, L. Ross.....Detroit
Leckie, George C.....Detroit
Ledwidge, Patrick L.....Detroit
Lee, Harry E.....Detroit
Leach, David .....Detroit
Leibinger, Henry R.....Detroit
Leipsitz, Louis S.....Detroit
Leiser, Rudolf .....Eloise
Leithauser, D. J.....Detroit
Leland, Sol .....Detroit

Lemley, Clark .....Detroit
Lemmon, Charles E.....Detroit
Lemmon, Clarence W.....River Rouge
Lentine, James J.....Detroit
Lenz, Willard R.....Detroit
Lepard, C. W.....Detroit
Lepley, Fred O.....Detroit
Lescohier, Alex W.....Grosse Pointe
L'Esperance, Simon P.....Detroit
Leszynski, J. S.....Detroit
Leucutia, Traian .....Detroit
Levant, Arthur B.....Detroit
Levin, David M.....Detroit
Levin, Samuel J.....Detroit
Levine, Sidney S.....Detroit
Levitt, Jacob .....Detroit
Levy, David J.....Detroit
Levy, Marvin B.....Detroit
Lewis, Charles T.....Detroit
Lewis, L. A.....Detroit
Lewis, J. Hugh.....Wyandotte
Lewis, Wilfred John.....Detroit
Libbrecht, Robert V.....Lincoln Park
Lichter, M. L.....Melvindale
Lieberman, B. L.....Detroit
Liddicoat, A. G.....Detroit
Lightbody, James J.....Detroit
Lignell, Rudolph .....Detroit
Lilly, Charles J.....Detroit
Lilly, Vernon .....Detroit
Linton, James R.....Eloise
Lipkin, Ezra .....Detroit
Lipschutz, Louis S.....Eloise
Livingston, George D.....Detroit
Livingston, George M.....Detroit
Lockwood, Bruce C.....Detroit
Lofstrom, James E.....Detroit
Long, Earle C.....Detroit
Long, John J.....Detroit
Loranger, C. B.....Detroit
Loranger, Guy L.....Detroit
Lorber, Joseph .....Detroit
Lord, Herman M.....Detroit
Lorentzen, Edwin H.....Detroit
Lovas, W. S.....Detroit
Love, W. Thomas.....Detroit
Lovering, William J.....Detroit
Lowrie, G. B.....Detroit
Lowrie, William L., Jr.....Detroit
Lowry, George L.....Detroit
Luce, Henry A.....Detroit
Lutz, Earl F.....Detroit
Lynn, David H.....Detroit
Lynn, Harvey D.....Detroit
Mabee, Frank P.....Detroit
Mabley, J. Donald.....Detroit
MacArthur, Robt. .....Detroit
MacCraken, Frances L.....Detroit
MacGregor, W. W.....Detroit
Mack, Harold C.....Detroit
MacKenzie, Earle D.....Detroti
MacKenzie, Frank M.....Detroit
MacKenzie, John W.....Grosse Pointe
Mackersie, W. G.....Detroit
MacMillan, Francis B.....Detroit
MacMullen, Frank B.....Detroit
MacQueen, Malcolm D.....Detroit
Madsen, Martha .....Detroit
Maguire, Clarence E.....Detroit
Mahlatjie, Nathaniel M.....Detroit
Mahoney, Hugh M.....Detroit
Maibauer, F. P.....Wyandotte
Maire, E. D.....Grosse Pointe
Malik, Nur M.....Detroit
Malachowski, B. T.....Detroit
Maloney, John A.....Detroit
Mancuso, Vincent S.....Detroit
Manting, Jacob .....Detroit
Marinus, Carleton J.....Detroit
Markoe, Rupert C. L.....Detroit
Marsden, Thomas B.....Detroit
Marsh, Alton R.....Detroit
Marshall, James R.....Detroit
Martin, Edward G.....Detroit
Martin, L. R.....Detroit
Martin, R. M.....Detroit
Martin, William C.....Detroit
Martinez, P. O.....Detroit
Martmer, Edgar.....Grosse Pointe
Marwil, T. B.....Detroit
Mason, Percy W.....Detroit
Mateer, John G.....Detroit
Mathes, Charles J.....Detroit
Mathieson, Don R.....Detroit
Matthews, Wallace R.....Dearborn
May, Earl W.....Detroit
May, Frederick T., Jr.....Detroit
Mayer, E. V.....Detroit
Mayer, Willard D.....Detroit
Mayer, William L.....Detroit
Mayne, C. H.....Detroit
McAfee, F. W.....Detroit
McAlonan, Wm. T.....Detroit
McAlpine, Gordon S.....Detroit
McCausland, M. B.....Detroit
McClellan, G. L.....Detroit
McClellan, Robert J.....Detroit
McClelland, Carl C.....Detroit
McClendon, James J.....Detroit
McClintock, J. J.....Detroit
McClure, Roy D.....Detroit
McClure, William R.....Detroit
McColl, Clarke M.....Detroit
McColl, Kenneth M.....Detroit
McCollum, E. B.....Detroit
McCord, Carey P.....Detroit
McCormick, Colin C.....Dearborn
McCormick, Crawford W.....Detroit
McCormick, Frank T.....Detroit
McCullough, Lester E.....Detroit
McDonald, Allan W.....Detroit
McDonald, Angus L.....Detroit
McDonald, George O.....Detroit
McDougall, B. W.....Detroit
McFadyen, Hugh A.....Detroit
McGarvah, A. W.....Detroit
McGarvah, Joseph A.....Detroit
McGillicuddy, Walter E.....Detroit
McGraw, Arthur B.....
Grosse Pointe Farms
McGuire, M. Ruth.....Detroit
McIntosh, W. V.....Detroit
McKay, Edwin B.....Detroit
McKean, G. Thomas.....Detroit
McKean, Richard M.....Detroit
McKenna, Charles J.....Detroit
McKinnon, John D.....Detroit
McLane, Harriett E.....Detroit
McLaughlin, Nelson .....Detroit
McLean, Don W.....Detroit
McLean, Harold G.....Detroit
McMahon, Gerald H.....Detroit
McNamara, Ronald J.....Detroit
McPhail, Malcolm .....Detroit
McPherson, R. J.....Detroit
McQuiggan, Mark R.....Detroit
McQuiggan, Paul .....Detroit
McRae, Donald H.....Detroit
Meader, F. M.....Detroit
Meek, Stuart F.....Grosse Pointe
Meinecke, Helmuth A.....Detroit
Mellen, Hyman S.....Detroit
Melnik, Maxim P.....Detroit
Menagh, Frank R.....Detroit
Mendelssohn, R. J.....Detroit
Mercer, R. E.....Detroit
Merkel, Charles C.....
Grosse Pointe Village
Merrill, Lionel N.....Detroit
Merrill, William O.....Detroit
Merritt, Earl G.....Detroit
Metzger, Harry C.....Detroit
Meyers, M. P.....Detroit
Meyers, Solomon G.....Detroit
Miley, H. H.....Detroit
Miller, Hazen L.....Detroit
Miller, Maurice P.....Trenton
Miller, Myron H.....Detroit
Miller, T. H.....Detroit
Miller, William Ernest.....Detroit
Mills, Clinton C.....Detroit
Mills, Georgia V.....Detroit
Miner, Stanley G.....Detroit
Minor, Edward G.....Detroit
Miral, Solomon P.....Detroit
Mishelevich, Sophie .....Detroit
Mitchell, C. Leslie.....Detroit
Mitchell, Gertrude F.....Detroit
Mitchell, W. Bede.....Detroit
Moe, Carl Rex.....Detroit
Moehlig, Robert C.....Detroit
Moisides, V. P.....Detroit
Moll, Clarence D.....Detroit
Molner, Joseph G.....Detroit
Moloney, J. Clark.....Dearborn
Mond, Edward .....Detroit
Monfort, Willard .....Detroit
Montgomery, John C.....Detroit
Moore, James A.....Detroit
Morand, Louis J.....Detroit
Moriarity, George .....Detroit
Morin, John B.....Detroit
Moritz, H. C.....Detroit
Morley, James A.....Detroit
Morrill, Donald M.....Detroit
Morris, Harold L.....Detroit
Morton, David G.....Detroit
Morton, J. B.....Detroit
Morton, Moses M.....Detroit
Mosee, J. Jones.....Detroit
Mosen, Max M.....Detroit
Moss, E. B.....Detroit
Muellenhagen, Walter J.....Detroit
Munro, Fred William.....Detroit
Munson, F. T.....Detroit
Muntyan, Andrew .....Detroit
Murphy, D. J.....Detroit
Murphy, Frank J.....Detroit
Murphy, John M.....Detroit
Murphy, Scipio G.....Detroit
Murphy, W. M.....Detroit
Murray, George M.....Detroit
Murray, William A.....Detroit
Musser, Fred C.....Detroit
Myers, George P.....Detroit
Myers, Gordon B.....Detroit
Nagle, John W.....Wyandotte
Naylor, A. E.....Detroit
Naylor, Arthur H.....Detroit
Neff, Irwin H.....Detroit
Nelson, Harry M.....Detroit
Nelson, Victor E.....Detroit
Neumann, Arthur J.....Detroit
Newbarr, Arthur A.....Detroit
Newman, Max Karl.....Detroit
Newton, Edward P.....Detroit
Nichamin, Samuel J.....Detroit
Nickerson, Dean .....Detroit
Nill, John B.....Detroit
Nill, William F.....Detroit
Noer, Rudolf J.....Detroit
Nolting, Wilfred S.....Detroit
Norconk, A. A.....Detroit
Norris, Edgar H.....Detroit
Northcross, Daisy L.....Detroit
Northrop, Arthur K.....Detroit
Norton, A. B.....Detroit
Nosanchuk, Barney .....Detroit
Noth, Paul H.....Grosse Pointe Farms
Nowicki, Joseph A.....Detroit
O'Brien, E. J.....Detroit
O'Brien, G. M.....Detroit
O'Donnell, Dayton H.....Detroit
Ohmart, Galen B.....Detroit
O'Hora, James T.....Detroit
Olechowski, L. .....Detroit
Olenikoff, Alex .....Detroit
Olmsted, William R.....Detroit
Olney, H. E.....Detroit
Oman, Cyrus F.....Detroit
Oppenheim, J. M.....Detroit
Oppenheim, Milton M.....Detroit
Opperman, Rudolph .....Detroit
Organ, Fred W.....Detroit
Ormond, John K.....Detroit
Orecklin, L. .....Detroit
Osius, Eugene A.....Detroit
Ottaway, John P.....Detroit
Ottrock, Anton .....Detroit
Owen, Clarence I.....Detroit
Owen, Robert G.....Detroit
Owen, Samuel H. C.....Detroit
Palmer, Hayden .....Detroit
Palmer, R. Johnston.....Detroit
Pangburn, L. E.....Detroit
Panzner, Edward J.....Detroit
Parker, Walter R.....Detroit
Parr, R. W.....Detroit
Parsons, John P.....Grosse Pointe Park
Pasternacki, Norbert T.....Detroit
Patterson, Walter G.....Detroit
Pawlowski, Jerome .....Detroit
Paysner, Harry A.....Detroit
Peabody, Charles William.....Detroit
Peacock, Lee W.....Detroit
Pearman, Charles L. R.....Detroit
Pearse, Harry A.....Detroit
Peirce, Howard W.....Detroit
Penberthy, G. C.....Detroit
Pequegnot, Charles F.....Detroit
Perdue, Grace M.....Detroit
Perkin, Frank S.....Detroit
Perkins, Ralph A.....Grosse Pointe
Perlis, H. L.....Detroit
Perry, Alvin La Forge.....Detroit
Petix, Samuel C.....Detroit
Pfeiffer, Rudolph L.....Detroit
Pickard, Orlando W.....Detroit
Pierce, Frank L.....Detroit
Pierson, Merle .....Detroit
Pinckard, Karl G.....Dearborn
Pinney, Lyman J.....Detroit
Pino, Ralph H.....Detroit
Piper, Ralph R.....Detroit
Pittman, J. E.....Detroit
Plaggemeyer, H. W.....Detroit
Pliskow, Harold .....Detroit
Podezwa, J. W.....Hamtramck
Pollock, John J.....Detroit
Poole, Marsh W.....Detroit
Poos, Edgar E.....Detroit
Porretta, Anthony C.....Detroit
Porretta, F. S.....Detroit
Porter, Howard J.....Romulus
Potts, E. A.....Detroit
Pratt, Jean P.....Detroit
Pratt, Lawrence .....Detroit
Prendergast, John J.....Detroit
Priborsky, Benjamin H.....Detroit
Price, A. H.....Detroit
Price, Alvin Edwin.....Detroit
Proud, Robert H.....Flat Rock

Ptolemy, H. H.....Detroit
Pugliesi, Benedetto .....Detroit
Purcell, Frank H.....Detroit
Pyle, Wynand.....Mountclair, N. J.
Quennell, Willard L.....Highland Park
Quiggley, William .....Detroit
Rabinovitch, Bella .....Detroit
Rahm, Lambert P.....Detroit
Raiford, Frank P.....Detroit
Rand, Morris .....Detroit
Randolph, Wilson .....Detroit
Rastello, Peter B.....Detroit
Ratigan, C. S.....Dearborn
Raynor, Harold F.....Detroit
Reberdy, George J.....Detroit
Reed, E. Hobart.....Detroit
Reed, H. Walter.....Detroit
Reed, Ivor E.....Detroit
Rees, Howard C.....Detroit
Reid, Wesley G.....Detroit
Reiff, Morris V.....Detroit
Reinbolt, Charles A.....Detroit
Reinsh, Ernest R.....Detroit
Rekshaw, W. R.....Dearborn
Renaud, G. L.....Detroit
Rennell, Leo P.....Detroit
Renz, Russell H.....Detroit
Repp, William A.....Detroit
Reveno, William S.....Detroit
Rexford, Walton K.....Detroit
Reye, H. A.....Detroit
Reyner, C. E.....Detroit
Reynolds, Lawrence .....Detroit
Reynolds, R. P.....Detroit
Rezanka, Harold J.....Detroit
Rhoades, F. P.....Detroit
Rice, C. Malcolm, Jr.....Detroit
Rice, Harold B.....Detroit
Rice, Meshel .....Detroit
Richards, R. Milton .....Detroit
Richardson, Allan L.....Detroit
Richey, Bert R.....Detroit
Ridge, Ralph W.....Wyandotte
Ridley, Edward R.....Detroit
Rieckhoff, George G.....Detroit
Rieger, John B.....Detroit
Rieger, Mary H.....Detroit
Riseborough, E. C.....Detroit
Rizzo, Frank .....Detroit
Robb, Edward L.....Detroit
Robb, Herbert F.....Belleville
Robb, J. M.....Grosse Pointe Village
Roberts, Arthur J.....Ecorse
Robertson, A. E.....Detroit
Robertson, Stanley B.....Detroit
Robertson, Tom H.....Detroit
Robillard, Henry .....Detroit
Robinson, George W.....Detroit
Robinson, Harold A.....Detroit
Robinson, R. G.....Detroit
Robinson, William H.....Detroit
Rogers, James D.....Wyandotte
Rogin, James R.....Detroit
Rogoff, A. S.....Detroit
Rohde, Paul C.....Detroit
Roney, Eugene H.....Detroit
Root, Charles T.....Eckerman
Rosbolt, Oscar P.....Detroit
Rose, Bernard .....Detroit
Rosenthal, Louis H.....Detroit
Rosenthall, M. J.....Detroit
Rosen, Robert .....Detroit
Ross, D. G.....Grosse Pointe
Ross, Ben C.....Detroit
Ross, Samuel H.....Detroit
Rotarius, E. M.....Detroit
Roth, Edward T.....Detroit
Roth, Theodore I.....Detroit
Rothbart, H. B.....Detroit
Rothman, Emil D.....Detroit
Rowda, Michael S.....Detroit
Rowell, Wilfred J.....Detroit
Rubright, LeRoy W.....Detroit
Rucker, Julian J.....Detroit
Rueger, Ralph C.....Detroit
Rupprecht, Emil F.....Detroit
Russell, John C.....Detroit
Ryan, Charles F.....Detroit
Ryan, W. D.....Detroit
Rydzewski, Joseph B.....Detroit
Ryerson, Frank L.....Detroit
Sachs, Herman K.....Detroit
Sachs, Ralph Robert.....Detroit
Sack, A. G.....Detroit
Sadowski, Roman .....Detroit
Sage, Edward O.....Dearborn
Sage, Thomas .....Detroit
Sager, E. L.....Detroit
St. Louis, R. J.....Detroit
Salchow, Paul T.....Detroit
Salisbury, Howard W.....Dearborn
Salowich, John N.....Detroit
Saltzstein, Harry C.....Detroit
Sander, I. W.....Detroit
Sanders, Alex W.....Detroit
Sanderson, Alvord R.....
Grosse Pointe Park
Sanderson, James H.....Detroit
Sanderson, Suzanne .....Detroit
Sanford, Hawley S.....Detroit
Sands, G. E.....Detroit
Sargent, William R.....Detroit
Sawicki, Bruno J.....Detroit
Sawyer, Harold F.....Detroit
Scarney, Herman D.....Detroit
Schaefer, Robert L.....Detroit
Schembeck, I. S.....Detroit
Schenden, A. J.....Melvindale
Schiller, A. E.....Detroit
Schinagel, Geza .....Detroit
Schlafer, Nathan H.....Detroit
Schmidt, Harry B.....Detroit
Schmidt, Milton R.....Trenton
Schmitt, Norman L.....Detroit
Schneck, Robert J.....Detroit
Schneider, Curt P.....Detroit
Schoenfield, Gilbert D.....Detroit
Schooten, Sarah S.....Detroit
Schreiber, Frederick .....Detroit
Schroeder, Carlisle F.....Detroit
Schultz, Ernest C.....Detroit
Schultz, Robert F.....Detroit
Schwartz, H. Allen.....Detroit
Schwartz, Louis A.....Detroit
Schwartz, Oscar D.....Detroit
Schweigert, C. F.....Detroit
Sciarrino, Stanley V.....Detroit
Scott, J. W.....Detroit
Scott, R. J.....Detroit
Scruton, Foster D.....Detroit
Seabury, Frank P.....Detroit
Seeley, James B.....Dearborn
Seeley, Ward F.....Detroit
Segar, Lawrence F.....Detroit
Seibert, Alvin H.....Detroit
Seiferlein, Archie L.....Detroit
Selby, C. D.....Detroit
Seliady, Joseph E.....Northville
Sellers, Charles W.....Detroit
Sellers, Graham .....Detroit
Selling, Lowell .....Detroit
Selman, J. H.....Detroit
Seltzer, Sol Norris.....Detroit
Sewell, George S.....Detroit
Seymour, William J.....Detroit
Shafarman, Eugene .....Detroit
Shaffer, Joseph H.....Detroit
Shaffer, Loren W...Grosse Pointe Park
Shafter, Royce R.....Detroit
Shapiro, I. Allen.....Detroit
Shapiro, Oscar U.....Detroit
Sharrer, Charles H.....Detroit
Shaw, Robert G.....Detroit
Shawan, H. K.....Detroit
Shebesta, Bessey Heald.....Eloise
Shebesta, Emil .....Detroit
Sheldon, John A.....Detroit
Shelton, C. F.....Detroit
Sheridan, Charles R.....Detroit
Sherman, B. B.....Detroit
Sherman, William L.....Detroit
Sherrin, Edgar R.....Detroit
Sherwood, DeWitt L.....Detroit
Shields, William L.....Detroit
Shifrin, Peter G.....Detroit
Shilkovsky, Hirsh H.....Detroit
Shipton, W. Harvey.....Detroit
Shlain, Benjamin .....Detroit
Shore, O. J.....Detroit
Shotwell, Carlos W.....Detroit
Shrom, Howard K.....Detroit
Shulak, Irving B.....Detroit
Shurly, Burt R.....Detroit
Siddall, Roger S.....Detroit
Siefert, John L.....Detroit
Siefert, William A.....Detroit
Sill, Henry W.....Detroit
Silvarman, I. Z.....Detroit
Silverman, M. M.....Detroit
Simpson, C. E.....Detroit
Simpson, H. Lee.....Detroit
Sippola, George W.....Detroit
Sisson, John M.....Detroit
Siwka, J. J.....Detroit
Skinner, W. Clare.....Detroit
Skolnick, Max H.....Detroit
Skrzycki, Stephen S.....Detroit
Skully, E. J.....Detroit
Skully, G. A.....Detroit
Sladen, Frank J.....Detroit
Slate, Raymond N.....Detroit
Slaugenhaupt, J. G.....Detroit
Slaughter, Wayne B.....Detroit
Slevin, John G.....Detroit
Slipson, Edith G.....Detroit
Sliwin, Edward P.....Detroit
Small, Henry .....Detroit
Smeck, Arthur R.....Detroit
Smeltzer, Merrill .....Detroit
Smith, Clarence V.....Detroit
Smith, Claude A.....River Rouge
Smith, F. Janney.....Detroit
Smith, Gerritt Calvin.....Detroit
Smith, Henry L.....Detroit
Smith, J. Allen.....Detroit
Smith, James A.....Detroit
Smith, L. Lloyd.....Detroit
Snedeker, Bernard C....Highland Park
Snow, L. W.....Northville
Snyder, Arthur M.....Detroit
Socall, Charles J.....Detroit
Sokolov, Raymond A.....Detroit
Somers, Donald C.....Detroit
Sonda, Lewis P.....Detroit
Sorock, Emil M.....Detroit
Souda, Andrew .....Wyandotte
Southwick, S. W.....Detroit
Spademan, Loren C.....Detroit
Spalding, Edward D.....Detroit
Sparks, J. H.....Detroit
Sparling, Harold I.....Northville
Sparling, Irene L.....Northville
Speck, Carlos C.....Detroit
Spencer, Frank .....Detroit
Spector, Maurice J.....Detroit
Sperry, Frederick L.....Detroit
Spitzley, W. A.....Detroit
Springborn, B. R.....Detroit
Sprunk, Carl .....Detroit
Sprunk, John P.....Detroit
Squires, W. H.....Eloise
Stafford, Frank W. J.....Detroit
Stageman, John Condon.....Detroit
Stalker, Hugh .....Grosse Pointe
Stamell, Benjamin B.....Detroit
Stamell, Meyer .....Detroit
Stanton, James M.....Detroit
Stapleton, William J., Jr.....Detroit
Starrs, Thomas C.....Detroit
Stefani, E. L.....Detroit
Stefani, Raymond T.....Detroit
Steffes, Everett M.....Detroit
Stein, James R.....Detroit
Stein, Saul C.....Detroit
Steinbach, Henry B.....Detroit
Steinberger, Eugene .....Detroit
Steiner, Louis J.....Detroit
Steiner, Max .....Detroit
Steinhardt, Milton J.....Detroit
Stellhorn, Chester E.....Detroit
Stellhorn, Mary Christine.....Detroit
Sterling, Lawrence .....Detroit
Sterling, Robert R.....Detroit
Stern, Edward A.....Detroit
Stern, Harry L.....Detroit
Stern, Louis D.....Detroit
Stevens, Rollin H.....Detroit
Stewart, Harry L.....Detroit
Stewart, Thomas O.....Detroit
Stirling, Alex M.....Detroit
Stockwell, B. W.....Detroit
Stokfisz, T.....Detroit
Stone, Elizabeth A.....Detroit
Straith, Claire L.....Detroit
Stricker, Henry D.....Detroit
Strickland, C. C.....Detroit
Strickroot, Fred L.....Detroit
Strohschein, Don F.....Detroit
Stubbs, Harold W.....Detroit
Sugarman, Marcus H.....Detroit
Sullivan, Hugh A.....Detroit
Summers, William S.....Detroit
Surbis, John P.....Detroit
Sutherland, J. M.....Detroit
Swaney, Colletta M.....Detroit
Swanson, Carl W.....Detroit
Swanson, Cleary N.....Detroit
Swartz, J. N.....Detroit
Swift, Karl L.....Detroit
Switzer, B. C.....Detroit
Syphax, Charles S., Jr.....Detroit
Szappanyos, Bela T.....Detroit
Szedja, J. C.....Detroit
Szlachetka, Vincent E.....Detroit
Tamblyn, E. J.....Detroit
Tann, H. E.....Detroit
Tapert, Julius C.....Detroit
Tapert, R. T.....Detroit
Tassie, Ralph N.....Detroit
Tatelis, Gabriel .....Detroit
Taylor, Nelson M.....Grosse Pointe
Taylor, Reu Spencer.....Detroit
Tear, Malcolm J.....Detroit
Teitelbaum, Myer .....Detroit
Tenaglia, Thomas A.....Ecorse
Texter, Elmer C.....Detroit
Thomas, Alfred E.....Detroit
Thomas, Fred W.....Detroit
Thompson, H. E.....Detroit
Thompson, H. O.....Detroit
Thompson, James B.....Detroit
Thompson, W. A.....Detroit

Thomson, Alexander ..... Detroit
Thosteson, George C..... Detroit
Tichenor, E. D..... Detroit
Toepel, Otto T..... Detroit
Tomsu, Charles L..... Detroit
Top, F. H..... Detroit
Torrey, H. N..... Detroit
Townsend, Frank M..... Detroit
Townsend, Kyle E..... Detroit
Trask, Harry D..... Detroit
Tregenza, W. Kenneth..... Detroit
Troester, George A..... Detroit
Trombley, Bryan ..... Detroit
Trombley, Joseph J., Jr..... Detroit
Troxell, Emmett C..... Detroit
Truszkowski, E. G. ..... Hamtramck
Tryon, Mary ..... Detroit
Trythall, S. W..... Detroit
Tufford, Norman G..... Detroit
Tulloch, John ..... Detroit
Tupper, Roy D..... Detroit
Turbett, Claude W..... Detroit
Turbett, S. O..... Detroit
Turcotte, Vincent J..... Detroit
Turkel, Henry ..... Detroit
Tyson, William E. E..... Detroit

Ulbrich, Henry L..... Detroit
Ulrich, Willis H..... Detroit
Umphrey, Clarence E..... Detroit
Usher, William Kay..... Detroit

Valade, Cyril K..... Detroit
Vale, C. Fremont..... Detroit
VanBaalen, M. R..... Detroit
VanBeceLaere, Lawrence H..... Ecorse
Van de Velde, Honore..... Detroit
VanGundy, Clyde R..... Detroit
Van Heldorf, Harry..... Detroit
Van Riper, Steven L..... Eloise
Vardon, Edward M..... Detroit
Vasu, V. O..... Detroit
Vernier, Jean A..... Detroit
Vincent, J. LeRoi..... Wayne
Voegelin, Adolph E..... Detroit
Voelkner, George H..... Detroit
Vokes, Milton D..... Detroit
Von der Heide, E. C..... Detroit
Voorheis, Wilbur J..... Detroit
Vossler, A. E..... Detroit
Vreeland, C. Emerson..... Detroit

Waddington, Joseph E. G..... Detroit
Waggoner, C. Stanley..... Detroit
Wainger, M. J..... Detroit
Waldbott, George L..... Detroit
Walker, Enos G..... Detroit
Walker, Roger V..... Detroit
Wallace, S. Willard..... Detroit
Walls, Arch ..... Detroit
Walser, Howard C..... Detroit
Walsh, Charles R..... Detroit
Walters, Albert G..... Detroit
Wander, William G..... Detroit
Ward, W. K..... Detroit
Warden, Horace F. W..... Detroit
Warner, P. L..... Detroit
Warren, Wadsworth ..... Detroit
Waszak, Charles J..... Detroit
Watkins, John T..... Detroit
Watson, Ernest Hamilton
..... Grosse Pointe Park
Watson, Harwood G..... Dearborn
Watson, J. Edwin..... Detroit
Watson, Robert W..... Highland Park
Watters, F. L..... Detroit
Watts, Frederick B..... Detroit
Watts, John J..... Detroit
Wax, John H..... Detroit
Wayne, M. A..... Detroit
Weaver, Clarence E..... Detroit
Weber, Karl ..... Detroit
Wehenkel, Albert M..... Detroit
Weiner, M. B..... Detroit
Weingarden, David H..... Detroit
Weinstein, Jacob ..... Detroit
Weisberg, Harry ..... Detroit
Weiser, Frank A..... Detroit
Welch, John H..... Detroit
Weller, Charles N..... Detroit
Wellman, W. W..... Detroit
Weltman, Carl ..... Detroit
Wendel, Jacob S..... Detroit
West, Howard G..... Detroit
Weston, Earl E..... Detroit
Weyher, Russell F..... Detroit
Whalen, Neil J..... Detroit
Wharton, Thomas V..... Wyandotte
White, Milo R..... Detroit
White, Prosper D..... Detroit
White, Theodore M..... Detroit
Whitehead, L. S..... Detroit
Whiteley, Robert K..... Detroit
Whitney, Elmer L..... Detroit
Whitney, Rex E..... Detroit
Whittaker, Alfred H..... Detroit
Wiant, R. E..... Detroit
Wickham, A. B..... Detroit
Wiener, I. ..... Detroit
Wight, Fred B..... Detroit
Wilcox, Leslie F..... Detroit
Wilkinson, Arthur P..... Detroit
Williams, C. J..... Detroit
Williams, Mildred C..... Detroit
Wills, J. N..... Detroit
Wilson, C. Stuart..... Detroit
Wilson, Gerald A..... Detroit
Wilson, James Leroy..... Detroit
Wilson, John D..... Detroit
Wilson, Walter J..... Detroit
Wilson, Walter J., Jr..... Detroit
Winfield, James M..... Detroit
Winsor, Carlton Webb..... Detroit
Wishropp, E. A..... Detroit
Wissman, H. C..... Detroit
Wittenberg, Arthur A..... Detroit
Wittenberg, Sydney S..... Detroit
Witter, Frank C..... Detroit
Witter, Joseph A..... Detroit
Witus, Morris ..... Detroit
Witwer, Eldwin R..Grosse Pointe Park
Wollenberg, Robert A. C..... Detroit
Woodry, Norman L..... Detroit
Woods, W. Edward..... Detroit
Woodworth, William P..... Detroit
Wreggit, W. R..... Highland Park
Wruble, Joseph ..... Detroit
Wygant, Thelma ..... Detroit

Yates, H. Wellington..... Detroit
Yesayian, H. G..... Detroit
Yott, William J..... Detroit
Young, Donald Andrew ..... Detroit
Young, Donald C..... Detroit
Young, James P..... Detroit
Young, Lloyd B..... Detroit
Young, Viola M..... Detroit

Zbudowski, A. S..... Detroit
Zbudowski, Myron R..... Detroit
Zemens, Joseph L..... Detroit
Zielinski, Charles J..... Detroit
Zindler, George A..... Detroit
Zimmerman, Israel J..... Detroit
Zinn, George H..... Detroit
Zinterhofer, John ..... Detroit
Zinterhofer, Louis ..... Detroit
Zlatkin, Louis ..... Detroit
Zolliker, Carl R..... Detroit

Wexford-Kalkaska-Missaukee Counties

Albi, R. W..... Lake City
Brooks, G. W..... Tustin
Carrow, J. F..... Marion
Gruber, John F..... Cadillac
Hager, Ralph..... Manton
Hoagland, F. L..... Cadillac
Holm, Augustus..... Leroy
Holm, Benton ..... Cadillac
Hoverter, J. W..... Evart
Laughbaum, T. R..... Lake City
McCall, James H..... Lake City
McManus, Edwin..... Mesick
Masselink, H. J..... McBain
Merritt, C. E..... Manton
Mills, Robert E..... Boon
Moore, G. P..... Cadillac
Moore, Sair C..... Cadillac
Murphy, Michael R..... Cadillac
Purdy, Calvin S..... Buckley
Showalter, Laurence E..... Cadillac
Smith, Wallace J..... Cadillac
Wood, George H..... Reed City

EDITORIAL

PHENOMENAL INCREASE

January 1, 1934—3,160 members
January 1, 1935—3,393 members
January 1, 1936—3,650 members
January 1, 1937—3,725 members
January 1, 1938—3,963 members
January 1, 1939—4,205 members
January 1, 1940—4,383 members

▪ These figures include only active members of the Michigan State Medical Society.

This represents an increase since 1934 of 38.7 per cent; truly a great tribute to the secretaries of the county societies, to county and state membership committees, to Dr. Foster and to Mr. Burns; and a source of real pride to every member of the Michigan State Medical Society.

There are still a few eligible Doctors of Medicine in the State who are not members of their county and state societies. With the same cooperation and interest that has been shown in the past years, soon there will be so few nonmembers that they could hold a meeting in Eleanor Roosevelt's traveling bag.

CANCER AND THE WOMEN'S FIELD ARMY

▪ Very few members of the medical profession know that there is such an organization as the Women's Field Army of the American Society for the Control of Cancer, working for and with them in the fight for earlier diagnosis and better treatment for the cancerous patient.

However, a few years ago physicians began to ask the American Society for the Control of Cancer's field representatives for an educational program that would bring patients to medical help while cancer was still local and curable. Those physicians who were willing and able to treat the diease pointed out that they could not go out into the streets and gather in those who had the painless symptoms of early cancer.

Thus, out of a great need was born the Women's Field Army, seeking to reduce cancer mortality by bridging the gap between the person who fears or has cancer and the best medical treatment. In other words, the "Army" is essentially an educational movement. Care of the indigent, sick, the development of more hospitals and clinics, the support of research, are all important aspects of this cancer problem, but not more important than preventing thousands from becoming hopelessly, incurably ill. Too many of those with advanced cancer are beyond any real help. The army will aid them, if it can, but first and foremost, it must concentrate on educational work that will preserve health, that will prevent those with early cancer from joining the tragic ranks of the incurables.

The philosophy of the Women's Field Army can be summed up as follows:

1. To teach the public the early signs of cancer and the significance of these signs when present.
2. To emphasize the fact that many forms of cancer in early stages, when treated adequately, are curable.
3. To drive home to all intelligent persons that the control of cancer is a personal matter, in that they must take the first step toward this control by asking the physician of their choice for a periodic medical examination and advice regarding further steps to be taken, if necessary.
4. To take unreasoning fear of the disease from the public mind by replacing fallacies and misinformation with known facts.
5. To teach the public and interest the medical profession in the value of periodic examinations of apparently well individuals as an important measure for the control of cancer.
6. To warn the public against all persons advertising or guaranteeing cancer cures, something which no reputable, ethical physician will do.

While the Army functions for most of the year, its period of greatest activity is in February, March and April. April has been designated by special Act of Congress as National Cancer Control month and it is then that the Field Army invites men and women to enlist in the movement. There are today 135,000 women actively interested in this work.

M.S.M.S. DOES NOT DEFEND MALPRACTICE SUITS

■ The House of Delegates in Grand Rapids, 1939, removed from the by-laws of the Michigan State Medical Society all arrangements to furnish legal defense to members who are victims of malpractice suits.

The reasons have been published in full at various times in THE JOURNAL and were, briefly: first, the attitude of the Treasury Department in determining our tax status; and second, the fact that our procedure was in violation of the code of ethics of the American Bar Association.

A Medical Defense Committee is still maintained and it is ready and willing to offer advice and suggestions upon the request of any members of the society.

This action went into effect January 1, 1940. Provisions have been made to protect the members in suits arising previous to that date.

WE CAN'T LET THEM DO IT

■ Prior to 1900 the training of doctors of medicine, which had been left to lay-directed institutions, had become woefully negligent of standards. It, therefore, became necessary for doctors of medicine through their professional associations to take up the task of elevating medical education standards. The successful accomplishment of raising standards of training in the art and science of medicine is well recognized as an outstanding achievement of Organized Medicine.

A Similar Situation

Now public demand for an application of the insurance principle or group payment to the purchase of medical care has led to the development of a variety of medical plans operated by mutual benefit associations, coöperatives, trade unions, fraternal societies, and insurance companies. **Sponsorship of medical plans by such lay groups has led to serious interferences with good standards of medical practice.** It is the duty of doctors of medicine to show that a plan for the delivery of medical services on a prepayment basis depends on professional control by doctors of medicine for satisfactory administration—just as they have shown that the elevation of the science and art of medicine is dependent on professional associations of doctors.

We Are Doing It

The House of Delegates of the Michigan State Medical Society, by directing the organization and the placing into operation of Michigan Medical Service, has developed a sound program for the provision of services of doctors of medicine to patients who desire to participate in a prepayment medical service plan.

SAVED BY COLONEL EMERY!

■ Last month a "fly-by-night" insurance company attempted, in one of our cities, to profit by the advertising and educational program of the Michigan Medical Service and the Michigan Society for Group Hospitalization. It set up an insurance plan which did not conform with the law in order to cash in on the popular appeal for budgeted hospital and medical expense.

The Legislature, in the past session, had anticipated such a move and protected the people of the State of Michigan by wise statutes. Immediately upon being notified, the Commissioner of Insurance wasted no time in putting into effect these protective precautions, and a speculative get-rich-quick hope vanished into thin air.

The thanks of the people of Michigan and of the physicians goes to a far-seeing Legislature and to the alert Commissioner of Insurance, Colonel John G. Emery and his efficient staff.

UNSOLICITED APPROVALS

■ The publishers of a series of medical books have been taking advantage of the good nature and honesty of the profession to send unsolicited copies of their volume.

It is a most unfair and unwarranted means of sales promotion.

The Better Business Bureau says that "if you have received unordered merchandise you should notify the company to send for the merchandise and then you may charge storage for keeping it." You may also charge for writing letters, et cetera, in connection with this merchandise. If you use the merchandise you would be obliged to pay for it.

This type of imposition used to be quite common in philatelic circles but the stamp collectors in a more or less organized movement made this means of unfair merchandising so expensive that it is only rarely used at present.

Legitimate publishers do not lower themselves

to this sales method and active resentment against it is surely justified and would be effective.

NO POLITICS, PLEASE!

■ The doctors of the following twenty-nine county medical societies realize that it is impossible to coöperate in a state program for medical care which has for its basis political expediency rather than humanitarian ideals. Independently these county medical societies have formally taken this action. They represent forty-eight of the eighty-three counties of Michigan.

Alpena-Alcona-Presque Isle
Barry
Bay-Arenac-Iosco-Gladwin
Berrien
Branch
Calhoun
Chippewa-Mackinac
Clinton
Delta-Schoolcraft
Dickinson-Iron
Eaton
Genesee
Gratiot-Isabella-Clare
Ingham
Hillsdale
Huron-Sanilac
Ionia-Montcalm
Jackson
Kent
Manistee
Mason
Menominee
Muskegon
Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw
Shiawassee
St. Joseph
Tuscola
Van Buren
Wexford-Kalkaska-Missaukee

MY SON

Oh, I like an old Doctor who calls me "my son,"
I can sit on his knee and can show him my gun.
I am never ascared when he takes off my coat,
Or to hold out my tongue when he looks at my throat.

Oh it's fun when his ears hold that long dangling thing,
As he listens to hear if my lungs have a ring.
Then he listens again when he tells me to hum,
And he taps on my ribs and he tickles them some.

But when I get laughing he's cross as a bear
For it sounds like some "chickens acackling" in there.
Then he squeezes my tummy and don't hurt a bit,
But,—"I ought to be spanked on the place where I sit."

He has shown me where hearts should be bouncing each beat
And tells if it misses, it is learning to cheat.
He examines my teeth, and my nose and my eyes,
And he looks down to see if my shoes are my size.

Then he writes on a card, "I may play ball and run."
Gee,— I like that old Doctor who calls me "my son."

Weelum

DUTY TO RESPOND TO CALL*

By L. M. Ford, LL.B., J.D.

Sufficient Notice Required

Where the physician wishes to continue or cease his attention, either permanently or temporarily, he must give the patient sufficient notice of his intention to allow him to make arrangements for another doctor. As to just what is sufficient notice will depend upon the circumstances of the particular case. Where the conditions of the patient are dangerous and require constant medical care and attention, it would of course be necessary for the attendant physician to give such warning to the patient as would enable him to employ another physician to take immediate charge of his case, upon the cessation of the former physician's attendance. A very interesting case in this connection is that of Lathrope vs. Flood, 63 Pac. 1007, which was decided by the Supreme Court of California in 1901. In this case defendant had been employed to attend plaintiff during her first confinement. At the beginning of her labor, he was sent for and attended. He attempted to aid in the delivery of the child by the use of instruments. He inserted the instruments, whereupon the woman in fear of pain, shrank back, compelling the doctor to let go of the instruments, greatly imperiling the lives of the mother and child. He made a second effort with a like result; and perhaps a third; though this was in controversy. The doctor testified that he warned the woman to be quiet, and explained to her the danger to herself and the infant, and finally told her that "if she did not quit, he would quit." After a second or third attempt to employ the instruments the defendant abruptly left the house without any explanation or suggestion to anyone. This was about midnight. The husband followed the doctor into the street asking him to return, but the defendant refused and walked away. After the interval of a half hour or more the presence of another physician was secured. He found her not so far advanced in parturition as to require the use of instruments, until some six or eight hours afterwards, when by their aid he delivered her of an infant which lived about eight minutes. It did not appear that

*This article is Part II in the first of a series of authoritative discussions on medico-legal problems written by Mr. Ford, attorney for the Medical Protective Company, Wheaton, Illinois.

any injuries were inflicted by the defendant's treatment up to the time of his abandonment. Verdict for the plaintiff for $2,000.

The Court says at Page 1007:

"It is undoubted law that a physician may elect whether or not he will give his services to a case, but, having accepted his employment, and entered upon the charge of his duties, he is bound to devote to the patient his best skill and attention, and to abandon the case only under one of two conditions: First, where the contract is terminated by the employer, which termination may be made immediate; second, where it is terminated by the physician, which can only be done after due notice, and an ample opportunity afforded to secure the presence of other medical attendance. Much expert testimony was given by physicians in this case to the effect that the relation of confidence between physician and patient is all important, and that a physician is justified in abandoning a case where that relationship does not exist. This is quite true, but the circumstances of abandonment are equally important. He can never be justified in abandoning it as did this defendant and the facts show a negligence in its character amounting well nigh to brutality. A young woman is in the throes of labor with her first confinement. She is suffering apparently not only the natural travail, but something more. Her condition is such that the physician has decided that the time to employ instruments to aid her delivery is at hand. He does employ them; and because the woman in fear and anguish is refractory, he, as he himself testified, 'became disgusted,' 'he was not a child to be trifled with'; and so leaves the house in the dead hour of the night, without time or opportunity afforded for the family to procure the attendance of another doctor. Such conduct evidenced a wanton disregard, not only of professional ethics, but of the terms of his actual contract. It was a violation of that contract, and for all damages that resulted, the defendant is justly responsible."

Ordinarily, there is no such immediate necessity for continued attendance as in this case the doctor would not be required to continue his attention up to the very time of the arrival of the one who is to take his place, but could abandon the case whenever he chose, provided, only, that he used proper judgment in determining whether or not there was a fair opportunity for the patient to secure other medical attendance in time to prevent injurious results from lack of attention. As to whether or not he had exercised proper judgment, would depend upon the consideration of locality, time, the patient's condition, and all other surrounding circumstances and the question would be decided very largely from the testimony of other physicians as expert witnesses.

Vacations

Most of the cases on this subject have arisen out of the alleged failure of the physician to properly notify his patients that he was about to take a vacation, or leave his practice temporarily, and the question in these cases has been not so much of law as of fact. The doctor usually testifies that he gave his patient proper notice, and referred the case to some other physician who would take charge of it during his absence, while the plaintiff testifies that no such notice was given.

Recommending Another Physician

In this connection it might not be amiss to state the duty imposed by law on the physician as to referring his patient to another physician who will care for the patient during his absence. The recent case of Lee vs. Moore, decided in 1914 in the Court of Civil Appeals of Texas, and reported in 162 S. W. 437, makes it incumbent upon the physician specially employed to attend the patient in the first instance, to send a substitute possessing that degree of knowledge, skill and care, which physicians ordinarily possess, and, if he does not, he is primarily liable for all damages proximately resulting therefrom; the mere exercise of ordinary care in the selection being insufficient.

In a suit arising in Ohio, and decided by Judge (ex-president) Taft, of the United States Circuit Court, it was held that the question as to whether or not the defendant had been guilty of malpractice, resulting in the loss of the plaintiff's eye, might depend upon the question as to whether or not the defendant's office girl had informed the patient that she was to go to a certain doctor for treatment during the defendant's absence.

In the case of Gerken vs. Plimpton, 70 N. Y. S. 793, the question was as to whether or not the defendant had returned from his vacation within the time stated by him to the patient that he would return. The defendant in this case had set the plaintiff's arm and had attended for some months, when he told the plaintiff that he was going away on his vacation. Defendant testified that he told the plaintiff that he was going away on his vacation for two or three weeks, and if she desired him to call again, she must send for him. The defendant did not return for five weeks, when he again examined

the arm, and found that the bones had slipped and overlapped. The Court says at Page 794:

"If, on this 12th day of September, he told the plaintiff that he would return in ten days or two weeks, and gave her instructions as to the course she should follow in the meantime, and he failed to return for five weeks, and if, in consequence of this failure to properly treat her during that interval, this injury resulted, it would seem that the jury were justified in finding that the defendant was negligent in this particular. A physician who undertakes the treatment of a patient is bound to exercise not only the skill required, but also care and attention in attending his patient until he notifies the patient that his professional relations are terminated. * * * And when a physician is employed to attend upon a sick patient his employment continues while the sickness lasts, and the relation of physician and patient continues, unless it is put an end to by the assent of the parties, or is revoked by the express dismissal of the physician. Potter vs. Virgil, 67 Barb, 580. The case depends upon the interview on the 12th day of September, and I think the jury were justified in finding if they believed the plaintiff's version of that interview, that the defendant had been negligent in the discharge of his duties which he had assumed in relation to the plaintiff."

Gratuitous Services

It is to be noted in this connection that the physician's duty to reasonably notify his patient of his intention to leave his practice is the same whether he is rendering services gratuitously or for money. The defendant attempted to introduce the fact, that the services were gratuitous as a defense in a well known case arising in New York (Becker vs. Janinski, 15 N. Y. S. 675), but the court took the contrary view. The Court says:

"Here it is not shown that the plaintiff was no longer in need of medical attention so that the defendant had no right to discontinue his attendance, unless either the plaintiff consented, or he gave her proper notice, he was guilty of grave professional negligence. The defendant swears, that at his last visit, he notified the plaintiff that he was going out of town, and indicated to her a physician who would attend her in his stead. If this statement be true, the defendant's absence is excused, and you must exonerate him from this imputation of neglect. The defendant's story is denied by the plaintiff's witnesses, and their testimony tends to prove that he abandoned her without leave and without notice. It is for you, gentlemen, to say what the fact is; and, according as you find the fact in favor of the plaintiff or of the defendant, your verdict on this question of negligence will be for the plaintiff or for the defendant."

Independently of the defendant's wrongful abandonment of her, the plaintiff charges that during his three days' attendance upon her, he treated her unskillfully. It is conceded that, when he ceased his visits to her, she had not been delivered of the "placenta" and that he was aware of the fact. The Court charged the jury:

"It appears that the plaintiff was a charity patient; that the defendant was treating her gratuitously. But I charge you that this fact in no respect qualifies the liability of the defendant. Whether the patient be a pauper or a millionaire, whether she be treated gratuitously, or for reward, the physician owes her precisely the same measure of duty, and the same degree of skill and care. He may decline to respond to the call of a patient unable to compensate him; but if he undertakes the treatment of such a person he cannot defeat a suit for malpractice that the skill and care required of a physician are proportioned to his expectation of pecuniary recompense. Such a rule would be of the most mischievous consequence; would make the health and lives of the indigent the sport of reckless experiment and cruel indifference. Even though, therefore, the defendant was not to be paid for his attendance, he was still bound in law to treat the plaintiff with requisite skill and requisite care."

When the courts lay down the rule that the physician's attendance need continue only so long as the patient's condition requires, they say in effect, that the physician at his peril must determine whether or not the patient's condition is such as, in the opinion of physicians of ordinary skill and diligence, in similar localities, would justify him in ceasing to give the patient further attention. As in other questions of medical treatment, the physician is not absolutely bound to arrive at the right result in coming to a conclusion on this matter, and is merely bound to exercise the best judgment of an ordinarily skilful physician. However, the mere fact that the patient accepts his opinion and assents to his ceasing his attention and fails to call other medical attention or surgical aid, is no defense to the doctor, in case he has not exercised the proper degree of skill and care in arriving at his judgment. This was held in the case of Carpenter vs. Blake, 75 N. Y. S. 12, where the Court in effect says that the defendant by such

action misrepresented his condition to the plaintiff and misled him to his injury.

To summarize the law on the subject under discussion a physician may elect as to whether or not he will accept employment in any given case, yet if he enters upon the employment without any expressed stipulation as to the nature or extent of his treatment, he is legally bound to continue his attendance until in the exercise of his best judgment, he decides that the patient is no longer in need of medical attention, unless before that time he is dismissed by the patient, or unless he discharges himself upon giving the patient a reasonable notice of his intention to cease his visits, thus allowing the patient an opportunity to call in other medical or surgical assistance. If he refers the patient to another practitioner for the purpose of treatment during a contemplated absence, he must refer the patient to a physician possessing the degree of knowledge, skill and care which physicians ordinarily possess. If he does this the demands of the law are fully satisfied.

(This concludes the first article in the medico-legal series)

MATERNAL MORTALITY

R. H. Loder, M.D., Director Division of Maternal and Child Health (State) Department of Health gives a brief analysis of maternal mortality in Nebraska and shows that in ten years septicemia decreased one-half in importance as a cause of maternal deaths. Puerperal toxemias decreased only slightly, maternal deaths due to abortions increased almost one hundred per cent in the past five years over the prior five years. The remaining causes are almost purely obstetrical problems and reductions and cause only a small number of maternal deaths in Nebraska. He credits various organizations and departments which disseminate information to practitioners that will aid them in attacking the causes of maternal deaths. "Much credit is also due the medical profession for applying effective obstetrical practices presented in refresher lectures, postgraduate courses and clinics in obstetrical care that will aid in lowering maternal mortality." The table of statistics from 1928 to 1938 inclusive is given and though not emphasized it is rather apparent that the maternal death per thousand decreases in direct proportion to the lowering of the birth rate per thousand.—*Nebraska State Medical Journal* (March, 1940).

AN EDITORIAL IN ONE SENTENCE

"Why should I have to *ask* our family doctor if the time has come for my children to have preventive inoculations?", asks the mother of four.—The *Wisconsin Medical Journal,* March 1940).

IN MEMORIAM

Edward Ames, of Kalamazoo, Michigan. Dr. Ames was born in 1851, and was graduated from Yale Medical School in 1874 and took his postgraduate work at Western Reserve University and New York University. He was one of the founders of New York State Medical Society and practiced at Sherman, Chautauqua County, New York, 1874-1893, and in Kalamazoo, Michigan, 1893-1939. Dr. Ames was elected an Emeritus member of the Michigan State Medical Society in 1935. He died March, 22, 1940, at Coconut Grove, Florida of coronary embolism.

* * *

Ruey Ford of Gaylord, Michigan. Dr. Ford was born December 10, 1861, in East Masonville, New York, and was graduated from the Hygiene College of Physicians and Surgeons, St. Louis, Mo., in 1894. The life of Dr. Ford is the story of a woman who dedicated her days to easing the suffering of others. She was taken ill early in life and while a patient in a sanatorium in Dansville, N. Y., decided to become a physician and started her studies while in that institution. She married Dr. Elmer Ford and came to Gaylord in 1898. Dr. Ford was past president of the O.M.C.O.R.O. County Medical Society. She died March 30, 1940.

* * *

Theron S. Langford of Ann Arbor, Michigan. Dr. Langford was born October 24, 1872, in Bell Oak, Michigan, and was graduated from the University of Michigan in 1902. He did his postgraduate work in Freiburg, Vienna and Edinburgh. Dr. Langford was president of Washtenaw County Medical Society in 1924 and was its secretary-treasurer from 1926-1931. He died December 20, 1939.

* * *

Clyde Allen Lown of Grand Ledge, Michigan. Dr. Lown was born in Deerfield township, Livingston County, October 10, 1870, and was graduated from the University of Michigan in 1904. He practiced a short time in both Howell and Brighton before locating in Grand Ledge, where he had lived for thirty years. Dr. Lown died January 20, 1940.

* * *

Byron W. Malfroid of Flint, Michigan. Dr. Malfroid was born in 1894 in Menominee, Michigan, and was graduated from the University of Michigan in 1918. He was president of the Flint Council of Health Agencies and had several terms as chief of staff at Women's Hospital. Dr. Malfroid died April 6, 1940.

* * *

Roy S. Smith, of Detroit, Michigan, was born on a farm near Hamilton, Ontario, November 5, 1887, and after several years of teaching was graduated in 1914 from the University of Toronto. Eight years later he took up his practice of medicine in Highland Park, and became a member of the Executive Board of Highland Park General Hospital, and a member of the staff of St. Joseph's Mercy Hospital and of Mount Carmel Mercy Hospital. He died February 28, 1940, in St. Petersburg, Florida.

* * *

Amos S. Wheelock of Goodrich, Michigan. Dr. Wheelock was born December 7, 1861, in Bridgewater, Michigan, and was graduated from the University of Michigan in 1888. The Goodrich General Hospital was founded by Dr. Wheelock. Recently an auditorium was added to the Goodrich school and named after Dr. Wheelock. It was in this building that the funeral services were held. He died January 22, 1940.

MICHIGAN MEDICAL SERVICE

TWO PLANS are being offered by Michigan Medical Service:

(a) The Medical Service Plan (complete service)

(b) The Surgical Benefit Plan (partial service)

Under the **Medical Service Plan** of Michigan Medical Service, subscribers are entitled to the following benefits:

1. Medical and surgical care from doctors of medicine, including home, office and hospital visits.

2. Consultation services and special medical services such as x-ray, laboratory and anesthesia services performed by doctors of medicine.

3. Obstetrical services after membership for a period of 12 consecutive months.

4. Medical services necessary to establish a diagnosis for tuberculosis, venereal diseases, cancer and malignant growths, and mental disorders will be provided, but no treatments for such conditions are included excepting that the initial operative and radiologic treatment of cancer will be provided.

Benefits will include treatment for conditions existing prior to the effective date of the subscriber's certificate, except that surgical treatment will not be provided in such case for appendicitis, if the subscriber has previously suffered one or more attacks, or for hernia.

Medical services will not be provided for alcoholism, drug addiction, self-inflicted injuries, or for conditions for which, or in cases where, medical services or compensation for medical services are available to the subscriber without cost to him under the laws or regulations of any federal, state, municipal or other legislative or administrative body. Drugs, materials, appliances or supplies will not be paid for under the Medical Service Plan.

Payment of the First $5.00

Subscribers to the Medical Service Plan must pay the initial charges, up to $5.00, for medical services. *Such initial charges will be collected directly from the subscriber by Michigan Medical Service.* The doctor need not bother about the matter. Subscribers will be required to pay the first $5.00 of medical charges only once in a subscription year regardless of the number of persons entitled to benefits under the Certificate. For example, when a subscriber who has enrolled his family requires medical services, he will pay to Michigan Medical Service the first $5.00 of charges incurred; thereafter, he and the other members of the family will be entitled to the aggregate of $875.00 worth of medical services in one year without the payment of any other initial charge.

The payment of the initial charge by the subscriber has been found to be a necessary requirement by operating medical service plans to avoid excessive demands for trivial services. Doctors should notify subscribers that the initial service charge will be collected from the subscriber by Michigan Medical Service. The doctor's bill for services, *including the initial service* (whether $5.00 or less), will be paid direct by Michigan Medical Service.

Surgical Benefit Plan

Under the **Surgical Benefit Plan,** subscribers are entitled to the following benefits:

(1) Surgical services (operative and cutting procedures for the treatment of disease and injuries, and the treatment of fractures and dislocations).

(2) Diagnostic x-ray services not to exceed the value of $15.00 in any one subscription year.

(3) Maternity care after membership for a period of 12 consecutive months.

The number of surgical operations or the amount of surgical benefits is not limited. However, if two or more surgical services are performed at one time or for the same cause, the total benefits will not be in excess of $150.00. Particular attention is called to the fact that a subscriber to the Surgical Benefit Plan *must be a bed patient in the hospital* before any benefits can be paid to the doctor and that medical treatment for general medical conditions, such as influenza, is not included. The low cost of this special limited plan permits treatment of fractures and dislocations, x-ray services up to $15.00, and maternity care.

Enrollment of 60,118 in Ten Weeks

A total of 1,360 employes of the Michigan State Highway Department have been enrolled in the *Medical Service Plan.* These employes, who are in localities throughout the entire state, were enrolled on March 25 and have since been en-

(Continued on Page 351)

APPLICATION FOR REGISTRATION
with
MICHIGAN MEDICAL SERVICE

_____ 1940

To Michigan Medical Service:

I am a doctor of medicine, duly licensed to practice in the State of Michigan, willing to provide medical services under the medical service plan of Michigan Medical Service, a non-profit corporation, and I hereby apply for registration thereunder.

I agree to abide by the Articles of Incorporation, By-Laws, and the Regulations of Michigan Medical Service, and amendments thereto, in matters relating to the Michigan Medical Service plan, and the same are made a part hereof.

I agree to furnish reports of services rendered to patients under the medical service plan of Michigan Medical Service, to accept compensation for such services in accordance with the regulations of Michigan Medical Service, and, unless permitted by these regulations, to make no direct charge to such patients for services rendered under the Michigan Medical Service plan.

No parties other than myself or Michigan Medical Service shall have any right as the result of any agreement between myself and Michigan Medical Service.

It is understood that I may at any time discontinue participation in the Michigan Medical Service plan by giving fifteen days' notice in writing to Michigan Medical Service.

.....M.D.

My office address to which all communications from Michigan Medical Service are to be sent is:

....
(Please print or typewrite name) (Street and number) (City or town)

Physicians who are NOT members of the Michigan State Medical Society please enclose $5.00, which is the per capita payment made by the Michigan State Medical Society on behalf of members.

If you have not already signed your Application for Registration with Michigan Medical Service, detach this copy, sign, and return to Michigan Medical Service, 2014 Olds Tower, Lansing, Michigan.

(Continued from Page 349)

titled to benefits under the Medical Service Plan for services by doctors of medicine.

A total of 58,758 employes have been enrolled in the *Surgical Benefit Plan.* These subscribers include employes of the Ford Motor Company in Dearborn, Highland Park, Ypsilanti, Tecumseh, Saline, Iron Mountain and L'Anse; Ford Trade School, Dearborn; Peoples Outfitting Company, Detroit and Dearborn; *Ann Arbor News,* Ann Arbor. Other groups of employes being enrolled in the Surgical Benefit Plan include the employes of the *Kalamazoo Gazette* and the *Saginaw News* of the Booth Newspapers, Inc.

Presentation of both plans is now being made to additional groups of employes throughout the state.

Income Limit

It has been necessary, in order to enroll employes without discrimination as to their labor status, to include a very small percentage of employes who earn more than $2,000 per year if an individual subscriber or $2,500 if a subscriber enrolls his family. However, employes earning in excess of these specified limits who are enrolled will only receive a credit toward their doctor bill. Such subscribers may be charged by the doctor for the difference between the ordinary charge to the subscriber and the payment to be received from Michigan Medical Service.

Only those subscribers who earn less than $2,000 per year if an individual subscriber, or $2,500 if the subscriber enrolls his family, are entitled to the benefits of the Medical Service Plan or the Surgical Benefit Plan without any additional charge by the doctor. For such subscribers, the doctor's bill for services included in the plans will be sent to Michigan Medical Service for payment in full.

Send Initial Service Report

When your services are requested by a subscriber, an Initial Service Report should be filled out immediately and mailed to Michigan Medical Service, Washington Boulevard Building, Detroit. These brief forms have been sent to all doctors in Michigan. **This Report makes it possible for the doctor to verify whether the subscriber is in good standing and eligible to receive services as a benefit under Michigan Medical Service.**

Be sure you have sent an Initial Service Report for each patient for whom you expect to render services to be paid by Michigan Medical Service.

Send Bill to Michigan Medical Service

At the completion of services, but not later than the end of each month (if prompt payment is desired), doctors should send an itemized statement to the Medical Advisory Board of Michigan Medical Service, Washington Boulevard Building, Detroit. Your District Medical Advisory Board, which consists of representatives from each county medical society in your Councilor District, will review and recommend payment of bills for services rendered. Monthly Service Report forms will be supplied to physicians by Michigan Medical Service.

Do not fail to send your Monthly Service Report to the Medical Advisory Board for payments for services rendered subscribers each month. Monthly payments cannot be made if doctors fail to bill Michigan Medical Service promptly.

Participation of Physicians

The splendid coöperation on the part of doctors of medicine throughout Michigan has made Michigan Medical Service possible. Almost 3,000 doctors of medicine have sent in their Applications for Registration as an indication of their willingness to provide services for subscribers. Doctors in every county of the state are registered. Be sure that your Application for Registration has been mailed. For your convenience, copy of the Application appears herewith. Specialists may register to provide only those services in their specialty. Doctors of medicine who sign their Applications for Registration may accept or decline patients just as they do in private practice.

During the first month of operation, more than 200 subscribers received services for which doctors of medicine have been paid several thousand dollars by Michigan Medical Service. The many hours of study and work on the medical plan are now producing tangible benefits for the public and the medical profession. Remember that Michigan Medical Service is the Doctor's Plan, *your* plan. Its continued success is dependent on your interest and coöperation in helping to administer the plan according to the best interests of the patient and the doctor.

YOU AND YOUR BUSINESS

YOU ARE LIABLE!

In recent years it has become an ever-increasing tendency in medical and surgical practice to utilize lay persons as aids in practice. Assistants in the form of non-licensed internes, medical students, nurses and technicians carry with them legal implications and significance far greater than may at first glance be realized.—"The Utilization of Agents in the Practice of Medicine and Surgery," by Carl Scheffel, M.D., LL.B., *The American Journal of Medical Jurisprudence,* May-June, 1939.

BLOOD TESTS ACCEPTED AS EVIDENCE

The medical profession of the country is interested in a written opinion rendered by Judge Henry G. Nicol in the Wayne County Circuit Court on February 14, 1940. The case was one in which an unmarried man was accused of being the father of a child. Blood tests were requested and the following results were obtained by Dr. Arthur W. Frisch of the Wayne University College of Medicine. The defendant belonged to the blood group AB type N. The complaining witness belonged to the blood group O type N and the child to blood group O type MN. In the above mating the property A or B should have appeared in the blood of the offspring and the factor M should have been lacking. On the basis of these findings, Dr. Frisch testified that the defendant was not the father of the child. With regard to the above testimony, Judge Nicol says, "—in addition to the testimony offered by the defendant, we have the testimony of the physician relative to the blood tests, to which the Court has given close attention. This expert testimony, while it cannot be received as being absolutely accurate, must be recognized as reliable insofar as the elimination process is concerned in the vast majority of the cases. For this reason, I am inclined to the opinion that this testimony brings the defendant's testimony to a weight equal to that offered by the People, if it does not outweigh the latter. This would result in the failure of the People to establish their proofs by a preponderance of the evidence, which they are called upon to do. The court has, therefore, reached the conclusion that the People have failed to establish a case against this defendant; and, therefore, finds the defendant herein not guilty of the charge made against him."

The above decision wherein blood tests have been accepted as evidence without previous statute serves to establish a precedent for the State of Michigan and ought to encourage the use of the tests in other cases of disputed paternity.

THE DUTIES OF PHYSICIANS TO THEIR PATIENTS

Patience, Delicacy and Secrecy

Section 1.—Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or domestic life entrusted by a patient to a physician and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidences entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

Prognosis

Section 2.—A physician should give timely notice of dangerous manifestations of the disease to the friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should assure himself that the patient or his friends have such knowl-

edge of the patient's condition as will serve the best interests of the patient and the family.

Patients Must Not Be Neglected

Section 3.—A physician is free to choose whom he will serve. He should, however, always respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, a physician should not abandon or neglect the patient because the disease is deemed incurable; nor should he withdraw from the case for any reason until a sufficient notice of a desire to be released has been given the patient or his friends to make it possible for them to secure another medical attendant.—Chapter II of *Principles of Medical Ethics.*

OPHTHALMIA NEONATORUM

William F. Hartman, M.D., of Philadellphia, from The Philadelphia Lying-In Hospital and Maternity Department of the Pennsylvania Hospital, presents the results of experimental work in the use of silver acetate for the prevention of ophthalmia neonatorum to replace the use of silver nitrate. He cites two reasons for the preference of the silver acetate: first, that it is impossible to make a solution, at ordinary temperature, of over one per cent; and second, that solution of the acetate does not break down as easily as silver nitrate solution and when it does it forms a double salt and acetic acid instead of nitric acid. Acetic acid is, of course, much less irritating than nitric acid in the same concentration. He concludes that (1) Silver acetate in one per cent solution is an effective prophylactic against ophthalmia neonatorium. (2) Silver acetate causes less chemical conjunctivitis than silver nitrate in the same concentration. (3) Silver acetate is entirely safe as it will not make a solution of sufficient concentration to injure the eye. (4) Because of the foregoing factors it would be well to amend our laws so that silver acetate would replace silver nitrate in the Credé prophylaxis.—The *Pennsylvania Medical Journal* (Feb. 1940).

READING NOTICES

Upjohn Display Wins Award

A window display of The Upjohn Company, Kalamazoo, Michigan, featuring a full color painting of a boy measuring his height against the wall, with the dates written on the wall to indicate his rapid growth since previous measurements, won a major award in the Window Displays Group of the All-America Package Competition.

The Colorful, human interest pictorial—with typical American boy, actual dates on wall beside height markings, and adoring puppy—is made up as a separate framed subject that can be lifted from the display and hung on wall of drug store (or recreation room) as a permanent piece of public relations material for Upjohn.

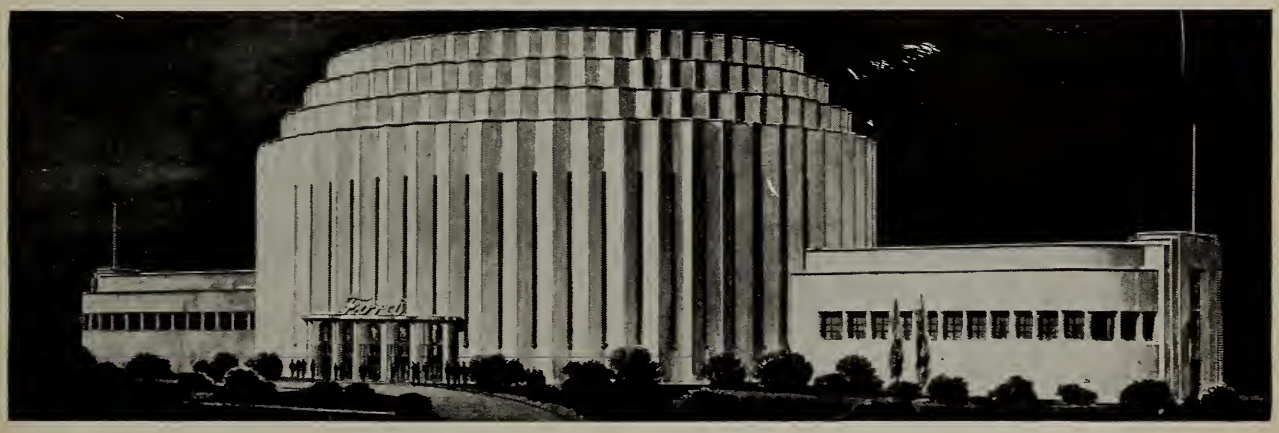
The original painting was done by Norman Rockwell, and The Upjohn Company staff designed the display.

Pernicious Anemia—Treatment

So much emphasis has been placed on the blood picture of the pernicious anemia patient that the rather characteristic body build of these individuals is often overlooked. Their tendency toward early graying of hair was recently pointed out (Jour. Indiana M. A., 32: 607, 1939) and the fact that they have a higher percentage of light hair and light-colored eyes than a normal control group. They tend to be long-eared persons, often with square and prominent jaws.

The maintenance dose of liver extract must be determined individually for each patient. It is usually one U.S.P. unit a day or the equivalent amount given at longer intervals. From two to five units are needed daily if the red-blood count is lower than three million per cubic millimeter. Neurological complications need not be feared if dosage is adequate to keep the red-blood-cell count around five million per cubic millimeter.

The high concentration of Liver Extract Solution, Purified, Lilly, permits decreasing the bulk of the injections used in parenteral therapy. Each centimeter contains fifteen U.S.P. units. All lots are standardized on actual pernicious anemia patients.



The Ford Rotunda

When attending the MSMS Convention in Detroit, September 25, 26, 27, 1940, visit the interesting Ford Rotunda.

MICHIGAN'S USE TAX LAW AND PHYSICIANS

Out-of-State Purchases by Michigan Medical Men for "Use" are Taxable

Inquiries are being made by physicians regarding their liability under the Michigan Use Tax Act recently upheld by circuit court decree. The Michigan State Board of Tax Administration, which collects the state sales tax, is charged with responsibility for collecting the use tax. Following court validation of the measure, the Board has begun the enforcement of Act No. 94 of 1937. Members of the medical profession are invited to examine this law for the purpose of determining their possible tax liability.

The Act provides for a levy of 3 per cent of the purchase price of any and all tangible personal property stored, used or consumed in the State of Michigan, on which an equivalent sales tax has not been paid in this or any other state. Generally speaking, the tax applies to purchases made in another state since the effective date, November 1, 1937. It is essentially a privilege and compensating tax, and because it attaches to shipments from or purchases made in another state *after* delivery to the purchaser in Michigan, the courts have ruled the tax is not a burden on interstate commerce.

Application of the Use Tax does not impose double taxation. It is not collectible against those who have paid an equivalent sales tax in this or any other state. On the other hand it protects by compensation those citizens who pay a 3 per cent sales tax when purchasing from Michigan merchants and manufacturers. In either case, whether the taxpayer buys at home and pays a sales tax, or whether he purchases abroad and pays a use tax, the result is the same —the tax burden is equal. Such in fact was the purpose of the Act—to eliminate discrimination by equalizing the tax burden and at the same time protect Michigan business against tax exempt foreign competition.

No Tax for "Services"

Specifically applied to the medical profession in Michigan, the use tax would not attach to "services" rendered by physicians and surgeons, whether advisory or physical. Likewise, there would be no sales tax levied on receipts from such "services." However, when Michigan physicians and surgeons purchase medical or surgical supplies, such as medicines, instruments, cabinets, fixtures, furniture or other office or laboratory equipment for professional use, the 3 per cent Michigan sales tax attaches on all such domestic purchases (within the state) and the 3 per cent use tax on all such purchases made out of the state. In the latter case it is immaterial whether orders are given and payments made to an agent or to the out-of-state seller direct, or whether delivery of such purchases is by person or via interstate commerce.

If the agent is the actual owner of the merchandise sold, he is required to collect and return a sales tax; if he is merely an agent for a seller outside of Michigan, the purchaser is liable for the use tax upon delivery of the merchandise.

User is Responsible for Tax Payment

All persons liable for the use tax are required to declare their liability, register with the State Board of Tax Administration at Lansing and pay the tax. This responsibility rests upon the taxpayer and failure to declare liability and pay the use tax may result in prosecution. The law also imposes a fine for failure or refusal to keep adequate and understandable records or for violation of any provision of The Act.

Unlike the sales tax licensees, use tax payers are not required to pay a fee for registration. Further, they may, by securing special permission from the Board, pay the use tax to the out-of-state seller, provided such seller has registered with the Board and agreed to become responsible for such collections. It is understood, however, that the seller, in such cases, does not assume responsibility for the payment of any tax which he has not actually collected.

This provision in the law interests many professional men who wish to comply with the statute requirements of the Use Tax Law, but would gladly escape the labor and annoyance of bookkeeping and monthly remittances. *Already several of the leading pharmaceutical and medical supply houses located in other states have, as a service to their Michigan customers, voluntarily agreed to collect and return the use tax to the Michigan State Board of Tax Administration.*

Payments by Seller Favored

The plan in effect means that the foreign seller remits to the Board once each month all Michigan use tax collections made during the preceding month. Physicians appreciate this service because it saves time and red tape. The seller is pleased because he has forged a closer bond of friendship with his customers, and made a gesture of good will by coöperating with a law enforcing unit of a state in which he enjoys the privilege of doing business. Thus many Michigan physicians have found it desirable to pay the use tax through the medical and pharmaceutical houses with which they deal.

While it is true that the validity of the use tax law in Michigan now awaits the final approval of the State Supreme Court, nevertheless the measure is in full force at the present time, and those who neglect or delay payment may eventually assume the added penalty of 25 per cent of the delinquent tax. The State Board of Tax Administration has amply protected all use tax payers in lieu of protest payments by declaring by resolution the refunding of all tax payments should the Supreme Court declare Act No. 94 of 1937 unconstitutional.

MEDICAL ADVISORY COMMITTEE TO COUNTY WELFARE BOARD

Creation of County Medical Advisory Committees is provided in the Michigan Social Welfare Law (Act 280 of 1939). The statute specifically provides for the formation of such an advisory committee in the following language:

"The County Board may appoint an advisory committee consisting of one doctor of medicine, nominated by the county medical society; one dentist, nominated by the district dental society; and one druggist, nominated by the district pharmaceutical association, to assist in formulating policies of medical care and auditing and reviewing bills for same" (Section 55-k).

While the law permits other healers, such as osteopaths, to render service to welfare clients in order to maintain the principle of free choice of healer, the Act specifically limits the medical advisory committee to one doctor of medicine, one dentist and one pharmacist. This was so ordained by the Legislature, despite the active petitions of representatives of other healing groups.

Some County Social Welfare Boards are being importuned at the present time to create advisory committees and include as members, healers not specified in the State Social Welfare Law. Physicians should invite the attention of county boards to Section 55-k of Act 280 of 1939:

"To create within the county department a division of medical care. The county board may appoint a properly qualified and licensed doctor of medicine as the head thereof, and an advisory committee consisting of one doctor of medicine, nominated by the county medical society; one dentist, nominated by the district dental society; and one druggist, nominated by the district pharmaceutical association, to assist in formulating policies of medical care and auditing and reviewing bills for same. Medical care as used in this section and sub-sections (a) and (b) of this section shall be deemed to include home and office attendance by physicians licensed under public act number 162 of 1903, as amended, or public act number 237 of 1899, as amended, dental service, optometric service, bedside nursing service in the home, and pharmaceutical service. The private physician-patient relationship shall be maintained; and the normal relationships between the recipients of dental, optometric, nursing and pharmaceutical service, and the services furnished by professions under act number 162 of the public acts of 1903, as amended, and act number 145 of the public acts of 1933, as amended, and the persons furnishing these services shall be maintained: Provided, however, That nothing in this section shall be construed as affecting the office of any city physician or city pharmacist established under any city charter or of any county health officers or of the medical superintendent of any county hospital."

HEALTH BILLS IN CONGRESS

1. S-3230, introduced by Senator Wagner of New York to make available hospital facilities for needy areas. This proposed WPA construction program was the subject of a hearing before the Sub-committee of the Committee on Education and Labor of the Senate in Washington on



Main Entrance

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White Oaks Farm

Marion, Ohio

For the treatment of
Nervous and Mental
Diseases
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Director
Neurologic Section

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Superintendent

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SAWYER SANATORIUM

White Oaks Farm

Marion, Ohio

March 18. The medical profession was represented by officials of the A.M.A. (see Jour.

2. S-3660. Senator Capper of Kansas proposes a $50,000,000 federal appropriation to induce states to formulate programs of sickness insurance. This bill is sponsored by the American Association for Social Security of which Abraham Epstein seems to be the guiding spirit (see Jour. A.M.A., April 6, page 1364, for analysis of this bill).

3. S-3630, Health Insurance Bill introduced by Senator Lodge of Massachusetts. Part I proposes to pay cash benefits from the Old Age Insurance fund to certain unemployed individuals, their wives, children and dependent parents who will receive medical, dental or hospital care in an amount not to exceed $40.00 per annum. Part II proposes federal grants to states that develop plans to provide certain medical services and facilities (such as x-ray treatments, respirators, and high-cost drugs). (See Jour. A.M.A, March 30, page 1271.)

4. The Wagner-George Hospital Construction Bill and the Mead Hospital Construction Bill (see Jour. A.M.A., April 6, page 1364).

BRIEF HISTORY OF MICHIGAN'S STATE MEDICINE EXPERIENCE

1. When were schedules A and C of the Michigan Crippled Children Commission first adopted?
   Schedule C in 1931 (Crippled Child Law).
   Schedule A in 1933 (Afflicted Child Law).
2. During what period was only $1.00 a case paid?
   From May, 1935, to June 30, 1936.
3. When were schedules A and C restored?
   As of July 1, 1936, to June 30, 1939.
4. On what date were schedules A and C again reduced?
   From July 1, 1939, until October 1, 1939, they were reduced 33⅓ per cent.
5. When were they restored?
   From October 1, 1939, until March 1, 1940 (five months) they were restored, to a $50 maximum.
6. When did the new schedules, 40 per cent below cost, go into effect?
   On March 1, 1940.
7. What per cent of money for crippled children care went to M.D.'s?
   17 per cent.
   What per cent of money for crippled children care went to hospitals?
   83 per cent.
   What per cent of money for afflicted children care went to M.D.'s?
   34 per cent.
   What per cent of money for afflicted children care went to hospitals?
   66 per cent.
   For what years did these percentages apply?
   Years 1937-1938. No figures available as yet on subsequent years.

Woman's Auxiliary

A.M.A. Convention Bulletin

IT WON'T BE LONG NOW before the Woman's Auxiliary to the American Medical Association will be convening at the Hotel Pennsylvania, New York City, for their 18th Annual Convention to be held June 10 to 14, 1940. IS YOUR RESERVATION IN? We are sure you will want to stay at the headquarters Hotel Pennsylvania. In order to get a reservation mail your request today to Dr. Peter Irving, Housing Bureau, Room 1036, 233 Broadway, New York City.

* * *

Bay County

Fifteen members of the Woman's Auxiliary to the Bay County Medical Society met for dinner Wednesday, March 13, 1940.

The nominating committee presented the new slate of officers and the following were elected for the coming year 1940-41; Mrs. W. R. Ballard, president; Mrs. J. Wm. Gustin, president-elect; Mrs. G. M. Brown, vice president; Mrs. H. M. Gale, treasurer; Mrs. C. W. Reuter, secretary; Mrs. J. N. Asline, corresponding secretary; Mrs. A. D. Allan, social relations; Mrs. K. Stuart, hospitality; Mrs. A. L. Ziliak, telephone committee.

Mrs. A. D. Allan and Mrs. W. R. Ballard were appointed to represent the group at an interclub council.

Dr. F. T. Andrews, county health director, gave a talk on his work.

The auxiliary sponsors a lecture annually in February. This year on February 21 Dr. Bruce Douglas of Detroit spoke on tuberculosis.

Genesee County

Officers were elected for the Auxiliary to the Genesee County Medical Society at the meeting at Hurley Hospital Nurses Home, Wednesday, March 27. Mrs. J. H. Curtin was named president, Mrs. Wm. B. Hubbard, vice president; Mrs. Kenneth Sand, secretary and Mrs. T. S. Conover, treasurer.

Dr. James A. Spencer contributed to the program by singing three numbers: "Ah Sweet Mystery of Life," "The Jasmine Door," and "One Hour," the last a song composed by the accompanist, Byron Brooke.

Chairman of hostesses was Mrs. Alvin Thompson, assisted by Mrs. Wm. P. Boles, Mrs. A. J. Reynolds, Mrs. Arthur McArthur, Mrs. Stephen Gelenger, Mrs. James A. Rowley, Mrs. J. Walter Orr, Mrs. H. T. White, Mrs. Don Brasie, Mrs. L. R. Himmelberger and Mrs. Harold Woughter.

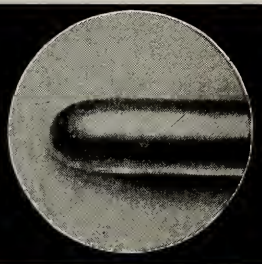
The retiring president, Mrs. Gordon Willoughby, was presented with a corsage.

* * *

Kalamazoo Academy

Twenty-five members of the Kalamazoo Academy Auxiliary were entertained at the home of Mrs. John MacGregor, March 19. Final plans were made for the benefit bridge to be given on April 3 for the Cancer Control Committee. Reports of the Legislative and Better Citizenship committees were followed by interesting discussions. After adjournment of the meeting, games were played. Each member received a "white elephant" as a prize.

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FOR safety and reliability use composite Radon seeds in your cases requiring interstitial radiation. The Composite Radon Seed is the only type of metal Radon Seed having smooth, round, non-cutting ends. In this type of seed, illustrated here highly magnified, Radon is under gas-tight, leak-proof seal. Composite Platinum (or Gold) Radon Seeds and loading-slot instruments for their implantation are available to you exclusively through us. Inquire and order by mail, or preferably by telegraph, reversing charges.

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Kent County

The Kent County Medical Auxiliary at the March meeting enjoyed an interesting and concise discussion of Cancer, by Dr. Clifford H. Keene. Due to an increase in the average life span he estimated that cancer will increase 50 per cent by 1950. Dr. Keene showed slides and discussed methods of treatment.

A St. Patrick's tea followed the lecture. Arrangements were in charge of Mrs. J. C. Tiffany and Mrs. Willis Dixon.

* * *

Lapeer County

The Lapeer County Woman's Auxiliary met with Mrs. D. J. O'Brien, Friday evening, March 22, 1940.

* * *

Monroe County

The Monroe County Auxiliary held a dinner meeting at the Country Club on March 28. Mrs. L. G. Christian and Mrs. H. L. French of Lansing, president and secretary, respectively, of the State Auxiliary, were guests.

* * *

Washtenaw County

The Woman's Auxiliary of the Washtenaw County Medical Society joined the campaign for the control of cancer at a dinner meeting in the Michigan League Building on Tuesday, March 12.

Dr. Henry Vandenberg of Grand Rapids gave the address.

Officers of the State Auxiliary present included Mrs. Guy Kiefer of East Lansing, first and now honorary president; Mrs. L. G. Christian of Lansing, active president; Mrs. Roger V. Walker of Detroit, president-elect, and Mrs. H. L. French of Lansing, secretary. Mrs. John L. Wierengo of Grand Rapids, state commander of the Women's Field Army for the Control of Cancer, was also present.

Wayne County

Mr. John D. Laux, Executive Director of Michigan Medical Service, gave a very interesting and instructive talk on "What We Have Learned from Foreign Systems of Medical Practice" at the March meeting, held in Alger Center on March 8. Mrs. William A. Irwin, Mrs. William L. Sherman, and Mrs. Orlando W. Pickard were hostesses at the tea in the Wayne County Medical club house at the close of the program.

The Auxiliary has worked diligently this year to benefit the Student Loan Fund and increase *Hygeia* sales. Recently the Auxiliary extended loans to two medical students from its Student Loan Fund, and to date 350 *Hygeia* subscriptions have been placed in the schools, libraries, charitable institutions, and private homes throughout metropolitan Detroit.

TAX-SUPPORTED MEDICAL SERVICE

The *Illinois Medical Journal* (Feb. 1940) quotes from an article by Carl Glennis Roberts, M.D., of Chicago, in the December, 1939, issue of *Opportunity Magazine* in which Dr. Roberts challenges a propaganda that the tax supported medical service is the best way to provide adequate medical care. Compare the German report for 1937 with that of the United States.

"Germany—Sickness cost to employer 5 per cent of income. Sickness cost to employee 8.5 per cent of income. Total: 13.5 per cent. Loss of working days, 17 per cent.

"United States—Cost to employer and employee 3 per cent of income. Total: 3 per cent. Loss of working days, 6 per cent.

"Difference of 10 per cent—cost of daministration and red tape."

Comment: We don't know whether the word *daministration* was a typographical error or not, but if it were, a new word has been coined which to most of us has the utmost significance.

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Manufacturers of
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English Willow or Metal Legs

Felt, Wood and Sponge Rubber Feet

Abdominal Belts, Trusses, Elastic Stockings, Crutches, and Orthopedic Braces.

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

COMMUNICABLE DISEASE REGULATIONS REVISED

New communicable disease regulations recently adopted by the Michigan Department of Health require physicians to report acute rheumatic fever. A fourth venereal disease, lymphogranuloma venereum, has also been added to the reportable disease group this year.

Streptococcic sore throat and Vincent's infection have been made reportable only in acute cases. Children who have been immunized against whooping cough are now exempted from regulations which previously required isolation.

If meningococcic meningitis is reported in a barracks or dormitory, a fourteen-day quarantine is required for all persons in the building.

If an autopsy is performed in a death attributed to rabies or if rabies vaccine is suspected as the cause, autopsy material must be supplied to the State Health Department Laboratories.

Reports of dysentery cases hereafter will include the mucous type as well as bloody diarrhea.

The specified strength of silver nitrate solution for the eyes of newborn babies has been changed to a one per cent solution. Formerly a one-and-a-half per cent solution was required. An improved type of ampule which prevents deterioration of the solution makes possible this change.

Doctors may obtain a copy of the revised regulations upon request to their local health department or the Michigan Department of Health at Lansing.

DISTILLED WATER AVAILABLE FREE

Distilled water for the diluent of arsenical drugs has been added to the materials provided to physicians by the State Health Department for the treatment of syphilis patients. The distilled water is distributed in 10 c.c. vials. Other drugs available from the Department and from local distributing centers include neoarsphenamine, mapharsen and bismuth subsalicylate in oil. Order forms for these drugs and supplies may be obtained upon request. A seperate order form is required for each patient, and each order is limited to ten ampules of arsenicals and one vial of bismuth.

GENERAL DOG QUARANTINE DECLARED

To meet an "emergency" situation caused by the widespread distribution of rabies, the State Health and Agricultural Departments have declared a general dog quarantine for the forty-seven counties in Michigan south of the Manistee-Iosco county line. The quarantine, which became effective April 1, will continue indefinitely until the rabies situation is brought under control.

Quarantine regulations announced by the State Health Department require confinement of all dogs to the owner's premises from which they can be removed only if held on a leash or so restrained that they cannot attack any other animal or person.

Dogs which are captured when running at large will be kept at the pound for 72 hours and then destroyed. Dogs may be destroyed sooner by any incorporated humane society or on order of a municipal veterinarian or health officer. Owners wishing to remove dogs from the quarantine area or to bring them into the quarantine area will obtain a permit from the local sheriff. Special certificates of health approved by the state veterinarian must be obtained for dogs moved from the quarantine area to another state.

Muzzling of dogs is not required nor is vaccination considered in the quarantine regulations. More than 5,500 persons received Pasteur treatments for dog bites last year.

BLOOD TEST REQUIRED IN INDIANA

Indiana's new marriage law which became effective March 1 requires non-residents to present a certificate of medical examination, including a blood test made at a state laboratory, before the marriage ceremony can be performed. Many Indiana-bound Michigan couples have been forced to return recently in order to obtain these medical certificates. The new Indiana law requires a three-day waiting period for residents, but not for non-residents.

DR. THIEHOFF APPOINTED TO STATE HEALTH STAFF

Dr. E. V. Thiehoff, director of District Health Department No. 7, at Gladwin, has been appointed assistant director of the State Health Department's Bureau of Local Health Service. Dr. Thiehoff will assist Dr. Carleton Dean, deputy commissioner, in directing the Department's intensive program for improving services to local health departments. Dr. Thiehoff received his M.D. from the University of Pennsylvania and his public health training at Johns Hopkins University. He was formerly acting director of the Cleveland Child Health Association and city physician in Akron, Ohio.

LABORATORY REGISTRATION DISCONTINUED

The Bureau of Laboratories reports that the Campbell Clinical Laboratory, 76 West Adams Avenue, Detroit, has been dropped from the list of laboratories registered for making examinations in the serodiagnosis of syphilis under Act No. 112, P. A. 1939 and Act No. 106, P. A. 1939.

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2. Barry County Medical Society
3. Branch County Medical Society
4. Cass County Medical Society
5. Chippewa-Mackinac County Medical Society
6. Clinton
7. Delta-Schoolcraft
8. Gogebic
9. Huron-Sanilac
10. Ingham
11. Lenawee
12. Livingston
13. Luce
14. Macomb
15. Manistee
16. Mecosta-Osceola
17. Menominee
18. Midland
19. Muskegon
20. Newaygo
21. Oceana
22. O.M.C.O.R.O.
23. Ontonagon
24. Tuscola
25. Wexford-Kalkaska-Missaukee

The above Societies have each certified dues for 100 per cent of their physicians who were members in 1939. Fifteen other societies have three or fewer unpaid members!

The American Association of Industrial Physicians and Surgeons will hold its annual meeting in New York City, June 4 to 7, Pennsylvania Hotel, the week just preceding the A.M.A. Convention.

* * *

Frederick B. Miner, M.D., Flint, has been appointed chairman, and Harry A. Towsley, M.D., Ann Arbor, a member, of the Iodized Salt Committee by President B. R. Corbus.

* * *

The new officers of the Michigan Association of Roentgenologists are:

President—James H. Dempster, M.D., Detroit
Vice President—Leland E. Holly, M.D., Muskegon
Secretary-Treasurer—J. E. Lofstrom, M.D., Detroit

* * *

"The man who graduates today and stops learning tomorrow is uneducated the day after."—Newton D. Baker.

Attend the M.S.M.S Convention, Detroit, September 25, 26, 27, 1940. Keep abreast of your fellows.

* * *

Gertrude Emily Olsen, M.D., formerly of Pontiac, Michigan, and daughter of A. B. Olsen, M.D., of Battle Creek, was married to Webster Saxman of Portland, Indiana, on March 26, and now resides in Georgetown, Minnesota.

* * *

The Michigan State Board of Examiners in the Basic Sciences will give examinations on June 28 and 29 at Wayne University, Detroit. Application blanks are available upon request to the Board, 200 Kedzie Laboratory, Michigan State College, East Lansing, Michigan.

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA, PA.

All County Medical Societies of Michigan are invited by the Executive Committee of The Council, M.S.M.S., to coöperate with the American Legion in child welfare activities by appointing doctors of medicine to help advise the Posts in the medical program and activities of this progressive group.

* * *

The Flint Regional Fracture Committee, in coöperation with the Genesee County Medical Society has arranged for Annual Fracture Day to be held at Hurley Hospital, May 15, 1940. The program, beginning at 9:00 a. m., is open to all members of the medical profession.

* * *

The Michigan State-wide Safety Conference will hold its sessions in Lansing on May 22, 23, 24, 1940 Murray D. Van Wagoner is General Chairman of the Conference. Safety leaders from Michigan and many other states are expected to bring the attendance to approximately 8,000 persons.

* * *

J. E. McIntyre, M.D., Secretary of the Michigan State Board of Registration in Medicine, Lansing, recently returned from a tour of medical schools and state medical board offices in the southern states. Among the states visited by Doctor McIntyre were Texas, Louisiana, Mississippi, Georgia, Arkansas, Tennessee and Kentucky.

* * *

The American Medical Association has issued the Official Call to the officers, fellows and members for its 91st annual session to be held in New York City, June 10 to 14, 1940. The headquarters hotel in New York will be the Waldorf-Astoria. Physicians planning to attend this important medical meeting should send for their hotel reservations without delay.

* * *

Memorial services were held on March 17, 1940, at All Saints' Episcopal Church, Newberry, for the late C. D. Hart, M.D., former member of The Council of the M.S.M.S, and Luce County Health Officer. Several former associates of Doctor Hart spoke briefly at the service in commemoration of his work in the community and the state.

* * *

The Alpena, Alcona, Presque Isle County Medical Society sponsored the Medical Dedication of the Alpena General Hospital at Alpena on April 17. F. J. O'Donnell, M.D., Alpena, president, presided. Among the guest speakers were George Leckie, M.D., and J. Milton Robb, M.D., of Detroit, and L. Fernald Foster, M.D., Bay City, and W. B. Newton, M.D., of Alpena.

* * *

The Westchester Country Club of Rye, New York, has arranged to issue guest cards to physicians attending the A.M.A. Convention next June. Doctors and their families are invited to avail themselves of the privileges of the golf club, the Lido on the Sound, and other recreational facilities. For cards, write Mr. H. B. Dickson, Manager of the Club, 420 Lexington Avenue, New York City.

* * *

W. H. Huron, M.D., Iron Mountain, Councilor of the 13th District, visited the Houghton-Baraga-Keweenaw County Medical Society on March 5. Doctor Huron addressed the Woman's Auxiliary as well as the County Medical Society. Doctor Huron also recently addressed two Parent-Teacher Associations, the Rotary Club and the Kiwanis Club on "Michigan Medical Service."

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M.S.M.S. Annual Meeting: The Detroit Golf Club has been chosen for the Invitational Golf Matches of the Michigan State Medical Society, scheduled for Monday, September 23, 1940, at 1:00 p. m. Wesley G. Reid, M.D., chairman of the M.S.M.S. Golf Committee, invites all golfing members of the State Society to attend this tournament as guests of the physician-members of the Detroit Golf Club. Dinner and presentation of prizes will be held in the clubhouse at 7:00 p. m.

* * *

The National Conference of Social Work will hold its 67th Annual Meeting in Grand Rapids, on May 26 to June 1, 1940. Approximately 8,000 delegates are expected to register. The Conference is coming to Michigan for the first time since 1933 when the meeting was held in Detroit; it was last held in Grand Rapids in 1896. Judge Clark E. Higbee of Grand Rapids, President of the Michigan Welfare League, is Chairman of the Local Committee on Arrangements.

* * *

The following Health Talks were released by the MSMS Radio Committee for broadcast over Radio Station CKLW at 7:30 p. m. during the past few weeks:

March 29—"The Centennial of Dentistry," by Dr. Carleton Fox of Detroit.
April 5—"What to Eat," by George C. Thosteson, M.D., Detroit.
April 12—"Nervous Indigestion" by Harold J. Kullman, M.D., Detroit.
April 19—"Tobacco and Your Health" by Neil J. Whalen, M.D., Detroit.
April 26—"Immunization for Your Child," by John C. Montgomery, M.D., Detroit.
May 3—"Painless Labor," by Albert E. Catherwood, M.D., Detroit.
May 10—"Public Health Programs in Michigan," by Ralph A. Johnson, M.D., Detroit.

* * *

Doctor, remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten more of the firms which helped make the 1939 Convention such a great success:

C. V. Mosby, St. Louis, Missouri
The Muller Laboratories, Baltimore, Maryland
Parke, Davis & Company, Detroit
Pelton & Crane Company, Detroit
Pet Milk Sales Corporation, St. Louis, Missouri
Petrolagar Laboratories, Chicago
Philip Morris & Co., New York City
Physicians' Equipment Exchange, Detroit
Professional Management, Battle Creek, Michigan
Ralston Purina Company, St. Louis, Missouri

* * *

The Michigan Society of Industrial Physicians and Surgeons held its annual meeting in Grand Rapids on April 17, at the Pantlind Hotel. Guest essayists included Elston L. Belknap, M.D., Milwaukee; Frederick W. Slobe, M.D., Chicago; Chester McVay, M.D., Ann Arbor; E. S. Gurdjian, M.D., Detroit; Kenneth E. Markuson, M.D., Detroit; Robert H. Denham, M.D., Grand Rapids; and Paul Magnuson, M.D., Chicago.

Election of officers, following approval of a new Constitution and By-laws, included President Frank T. McCormick, M.D., Detroit; President-Elect George J. Curry, M.D., Flint; Vice President C. F. DeVries, M.D., Lansing; Secretary J. Duane Miller, M.D., Grand Rapids.

A. G. Park of Chicago, Executive Secretary of the American Association of Industrial Physicians and Surgeons, outlined the integration program of his organization, developed through state associations.

American Board of Obstetrics and Gynecology—Examinations

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted at Atlantic City, N. J., from Friday, June 7, through Monday, June 10, 1940, prior to the opening of the annual meeting of the American Medical Association in New York City on Wednesday, June 12, 1940. Formal notice of the exact time and place of the examination will be forwarded to each candidate several weeks in advance of the examination dates. Group A candidates will be examined on June 7 and 8, and Group B candidates on June 9 and 10.

A.M.G.A. Golf Tournament

The American Medical Golfing Association will hold its twenty-sixth annual tournament at Winged Foot Golf Club, Mamaroneck (Westchester County), New York, on Monday, June 10, 1940. Members may tee off from 7:30 a. m. to 2:00 p. m.

Fifty Trophies and Prizes: Thirty-six holes of golf will be played in competition for the fifty trophies and prizes in the eight events. Trophies will be awarded for the Association Championship, thirty-six holes gross, the Will Walter Trophy; the Association Handicap Championship, thirty-six holes net, the Detroit Trophy; Championship Flight, First Gross, thirty-six holes, the St. Louis Trophy; Championship Flight, First Net, thirty-six holes, the President's Trophy; Eighteen Hole Championship, the Golden State Trophy; Eighteen Hole Handicap Championship, the Ben Thomas Trophy, and the Atlantic City Trophy; Maturity Event, limited to Fellows over 60 years of age, the Minneapolis Trophy; and the Oldguard Championship, limited to competition of past-presidents, the Wendell Phillips Trophy. Forty other prizes will be awarded for the various flights.

Fellows in Every State of the Union: Dr. George Washington Hall of Chicago is President, and Dr. D. H. Houston of Seattle and Dr. Grayson Carroll of St. Louis are Vice-presidents of the A.M.G.A., which was organized in 1915 by Drs. Will Walter, Wendell Phillips and Gene Lewis and now totals 1,565 members, representing every state in the Union. The living past-presidents include Drs. Thomas Hubbard of Toledo, Fred Bailey of St. Louis, Robert Moss of La Grange, Texas, Charlton Wallace of New York, Will Walter of Evanston, Illinois, James Eaves of Oakland, California, D. Chester Brown of Danbury, Connecticut, W. D. Sheldon of Rochester, Minnesota, Walter Schaller of San Francisco, Edwin Zabriskie of New York, Frank A. Kelly of Detroit, John Welsh Croskey of Philadelphia, Homer K. Nicoll of Chicago, Charles Lukens of Toledo, M. M. Cullom of Nashville, W. Albert Cook of Tulsa, Walt P. Conaway of Atlantic City, and E. S. Edgerton of Wichita, Kansas.

Dr. James Craig Joyner Heads New York Golf Committee: The New York Golf Committee is under the chairmanship of Dr. James Craig Joyner, 718 Park Avenue, New York City. He will be assisted by Drs. Edwin Zabriskie, Charlton Wallace, Orrin Sage Wightman and Asa Liggett Lincoln.

Two 18-hole Championship Courses: The twenty-sixth tournament of the American Medical Golfing Association at Winged Foot promises to be a wonderful affair. The club is one of the most elaborate in the country, with a beautiful clubhouse and two sporty courses. The A.M.G.A. officers anticipate that some 250 to 300 medical golfers from all parts of the United States will play 36 holes in New York on June 10.

Application for Membership: All male Fellows of the American Medical Association are eligible and cordially invited to become members of the A.M.G.A. Write Executive Secretary Bill Burns, 2020 Olds Tow-

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er, Lansing, Michigan, for application blank. Participants in the A.M.G.A. tournament are required to present their home club handicap, signed by the club secretary, at the first tee on the day of play. No handicap over 30 is allowed. Only active Fellows of the A.M.G.A. may compete for prizes. *No trophy is awarded to a Fellow who is absent from the annual dinner,* which is always worthwhile attending!

* * *

Meeting with Newspapermen.—A few county medical societies have hit upon this unique plan of achieving better public relations: holding a special meeting (usually with dinner to which are invited as guests all the editors of daily and weekly newspapers in the territory of the county medical society. The editors are flattered at the invitation and accept usually 100 per cent. All guests are formally introduced, and one, as spokesman for the group, is invited to speak. In return, a representative of the medical profession gives the medical viewpoint on some of the current problems, and the aims and purposes of the county and state medical societies, working in behalf of the people. Why not try this experiment in your county, soon?

* * *

Articles in the Journal of the American Medical Association, April 20, 1940, included "Tumors of the Vulva" by Clair E. Fulsome, M.D., Ann Arbor, and "Fulminating Cancer of the Penis" by J. K. Ormond, M.D., Detroit.

* * *

Burt R. Shurly, M.D., was fêted with a testimonial banquet on April 25 by 500 of his friends, in the Masonic Temple, Detroit. The active life and accomplishments of Dr. Shurley were testified to by representatives of the medical and educational professions, veterans of the Spanish-American War and the World War, and many civic groups, all of which have profited by the association and dynamic interest of Doctor Shurly throughout the years of his busy decades in Detroit and Michigan. A portrait by Roy C. Gamble of the late Dr. E. L. Shurly, uncle of Dr. Burt R. Shurly, attracted much interest. Depicted intent upon the doctor's lecture are the faces of a group of his students and associates of the early nineties, including Drs. Burt R. Shurly, E. S. Bullock, Preston M. Hickey, C. G. Jannings, Angus McLean, F. B. Walker and D. M. Campbell. Drs. Shurly, Bullock and Campbell still live.

* * *

The National Gastroenterological Association will meet at Hotel Roosevelt, New York, June 4, 5, 6 for its fifth annual convention. Members of the medical profession are cordially invited. Write Henry Kendall, M.D., 16 East 96th Street, New York, for copies of the program.

* * *

The Michigan State Board of Registration in Medicine will hold its next examination concurrently in Ann Arbor and Detroit on June 12, 13, 14, 1940.

* * *

A Committee on the Study of Michigan's Health Laws has been appointed by Chairman Henry R. Carstens, M.D., pursuant to authority by the Executive Committee of The Council. The personnel of the committee is: C. H. Hess, M.D., Bay City, Chairman; R. S. Breakey, M.D., Lansing; Wm. N. Braley, M.D., Highland Park; G. M. Byington, M.D., Detroit.

The committee will study recommendations for improvement of all health laws on the statute books of the State.

COUNTY MEDICAL SOCIETY MEETINGS

Bay County—March 13—Bay City—Speaker: Warren Wheeler, M.D., Lansing; March 27—Bay City—Speaker: Edward Cathcart, M.D., Detroit; April 10—Bay City—Speaker: Clifford Keene, M.D., Ann Arbor.

Berrien County—March 6—St. Joseph—Series of movies on medical subjects; April 3—Niles—Movie from Research Department of Upjohn's; May 2—Benton Harbor—Speaker: B. M. Mitchell, M.D., Lansing.

Calhoun County—April 2—Battle Creek—Speaker: Albert H. Montgomery, M.D., Chicago.

Dickinson-Iron—April 4—Norway—Speaker: L. E. Hamlin, M.D., Norway.

Eaton County—March 21—Charlotte—Speaker: Norman F. Miller, M.D., Ann Arbor; March 28—Charlotte—Speaker: L. G. Christian, M.D., Lansing.

Genesee County—March 14—Flint—Speaker and Honor Guest: Burton R. Corbus, M.D., Grand Rapids; March 27—Flint—Speaker: J. Milton Robb, M.D., Detroit.

Hillsdale County—February 8—Hillsdale—Speaker: Claire Straith, M.D., Detroit; March 28—Hillsdale—Speaker: Harold W. Wiley, M.D., Lansing.

Huron-Sanilac—February 22 — Sandusky — Speaker: Mr. Otis F. Cook, Lansing.

Ingham County—March 19—Lansing—Speaker: W. F. Schreiber, M.D., Detroit.

Ionia-Montcalm—March 15 — Greenville — Speakers: Clarence Snyder, M.D., and Harrison S. Collisi, M.D., of Grand Rapids; April 9—Belding—Speaker: Dr. Carl R. Anderson of Grand Rapids.

Jackson County—March 19—Jackson—Speaker: W. B. Cooksey, M.D., Detroit; April 16—Jackson—Speaker: E. S. Gurdjian, M.D., Detroit.

Kalamazoo County—March 19—Kalamazoo—Speakers: L. J. Hirschman, M.D., Detroit, and H. S. Collisi, M.D., Grand Rapids; April 16—Kalamazoo—Speaker: Clifford H. Keene, M.D., Ann Arbor.

Kent County—March 13—Grand Rapids—Speaker: Clifford H. Keene, M.D., Ann Arbor; March 27—Grand Rapids—Speakers: W. P. L. McBride, M.D., and A. J. Baker, M.D., Grand Rapids; April 9—Grand Rapids—Speaker: David Slight, M.D., Chicago.

Manistee—April 1—Manistee—Speaker: T. M. Koppa, M.D., Lansing.

Midland—March 14—Midland—Speakers: W. E. Barstow, M.D., St. Louis, and P. R. Urmston, M.D., Bay City.

Monroe—April 18—Monroe—Speaker: E. L. McQuade, M.D., Lansing.

Muskegon—March 15—Muskegon—Speaker: W. C. C. Cole, M.D., Detroit.

Northern Michigan Medical Society—March 14—Petoskey—State Society Night—Speakers: L. Fernald Foster, M.D., Roy C. Perkins, M.D., and F. T. Andrews, M.D., Bay City.

Oakland County—April 3—Pine Lake—Business Meeting.

OMCORO Society—March 22—Gaylord—State Society Night—Speakers: L. Fernald Foster, M.D., P. R. Urmston, M.D., and Roy C. Perkins, M.D., Bay City.

Saginaw County—February 20—Saginaw—Speakers: W. E. Barstow, M.D., St. Louis, and L. Fernald Foster, M.D., Bay City.

St. Clair County—March 12—Port Huron—Business Meeting; March 26—Port Huron—Speaker: Louis J. Bailey, M.D., Detroit; April 9—Port Huron—Speaker: C. F. Vale, M.D., Detroit.

Shiawassee County—March 21—Owosso—Speaker: Miss Currie.

Washtenaw County—March 12—Ann Arbor—Speaker: Bert M. Bullington, M.D., Ann Arbor; April 9—Ann Arbor—Speaker: T. E. Gibson, M.D., Lansing.

Wayne County—April 1—Detroit—Combined meeting with Regional Session of the A.C.S.; April 8—Detroit—Hickey Memorial Lecture—Speaker: A. C. Christie, M.D., Washington, D. C.; April 15—Detroit—Joint Meeting of W.C.M.S. with Woman's Auxiliary—Speaker: Haven Emerson, M.D., New York City; April 22—Detroit—Surgical Meeting—Speaker: C. B. Puestow, M.D., Chicago; April 29—Detroit—Glee Club Annual Concert.

West Side Medical Society (Wayne)—March 21—Detroit—Speakers: A. E. Schiller, M.D., Harold Clark, M.D., Russell Costello, M.D., and Claire L. Straith, M.D., Detroit; April 18—Detroit—Richard H. Lyons, M.D., L. J. Hirschman, M.D., D. G. Christopoulos, M.D., and Frank A. Kelly, M.D., Detroit.

SOCIETY OFFICERS

Northern Michigan Medical Society

President—H. M. Harrington, M.D., East Jordan
President-Elect—Gilbert B. Saltonstall, M.D., Charlevoix
Secretary—A. F. Litzenburger, M.D., Boyne City
Delegate—Wm. S. Conway, M.D., Petoskey
Alternate—Walter E. Larson, M.D., Levering

* * *

St. Joseph County Medical Society

President—John Sheldon, M.D., Sturgis
Secretary—J. W. Rice, M.D., Sturgis
Delegate—J. W. Rice, M.D., Sturgis
Alternate—R. A. Springer, M.D., Centerville

* * *

Van Buren County Medical Society

President—R. W. Spalding, M.D., Gobles
President-Elect—Edwin Terwilliger, M.D., South Haven
Secretary—Charles Ten Houten, M.D., Paw Paw
Treasurer—A. A. Steele, M.D., Paw Paw
Delegate—W. R. Young, M.D., Lawton
Alternate—Edwin Terwilliger, M.D., South Haven

In view of the remarks made by some of the members of the Michigan State Medical Society relative to chiseling by the doctors it is interesting to note and quote:

"Chiseling—We heard a lot before California Physicians' Service was started about what would be done to it by 'chiseling' doctors. So far, over five hundred bills have been received from professional members, and the Medical Director is unable to detect any chiseling yet. Coöperation by the doctors has been excellent. California Physicians' Service is their own plan, not just another insurance company."—*California and Western Medicine,* (Feb. 1940).

We do not propose to stand by and see the mental processes of the American people get into an unhygienic state by contamination from individuals who are infected with some mental virus from unhealthful areas of the world. Such individuals give evidence of wanting to change America's way of life from one of the best places in the world to live to forms of government where life, to say nothing of health, seems very cheap. Let us keep from emigrating to this country, people infected with smallpox and typhoid and, likewise, men whose minds are infected with strange fancies of government—and this in the interest of preventive medicine.—By Ralph H. Pino, M.D., at the Mt. Carmel Mercy Hospital Banquet, January 31, 1940.

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Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation of those sending them. A selection will be made for review, as expedient.

SYNOPSIS OF OBSTETRICS. By Jennings C. Litzenberg, M.D., F.A.C.S., Professor Emeritus of Obstetrics and Gynecology, University of Minnesota Medical School, Minneapolis. With 157 Illustrations. Including 5 in color. St. Louis: The C. V. Mosby Company, 1940. Price: $4.50.

A very comprehensive condensation of the modern practice of obstetrics. The author has selected from the standard textbooks on obstetrics and from the current literature, drawings, diagrams and pictures which enable the reader to most clearly understand. For a synopsis the volume is unusually complete and well indexed. It is published in pocket-size.

CANCER IN CHILDHOOD and a Discussion of Certain Benign Tumors. Edited by Harold W. Dargeon, M.D., F.A.A.P., Attending Pediatrician, Memorial Hospital for Cancer and Allied Diseases, New York; Associate Pediatrician, St. Luke's Hospital, New York; Associate Pediatrician, New York Foundling Hospital; Instructor in Pediatrics, College of Physicians and Surgeons, Columbia University. Illustrated. St. Louis: The C. V. Mosby Company, 1940. Price: $3.00.

Dargeon has supplemented his monograph on malignant tumors in childhood with papers which represent the collective efforts and experiences of members of the various departments of the Memorial Hospital for Cancer and Allied Diseases in New York. James Ewing has presented "A Survey of Cancer in Childhood." Other associates discuss this problem from the standpoint of their own specialties. The illustrations alone would emphasize to any physician the need of early diagnosis but a bright hope is held even in some of the terrifying and destructive lesions described.

ESSENTIALS OF THE DIAGNOSTIC EXAMINATION. By John B. Youmans, B.A., M.S., M.D. Associate Professor of Medicine and Director of Postgraduate Instruction, Vanderbilt University Medical School, New York, The Commonwealth Fund. London: Humphey Milford, Oxford University Press, 1940. Price: $3.00.

This is a handy book both in material and size. In a pocketsize edition the author, who is well qualified, concisely and clearly describes all the commonly used procedures and methods of clinical and laboratory methods which are important in modern medicine. The significance of the examiner's findings are also analyzed from a clinical viewpoint. This book should be worth while to every general practitioner who wishes to practice scientific medicine.

ARTIFICIAL PNEUMOTHORAX, Its Practical Application in the Treatment of Pulmonary Tuberculosis. Contributions by Saranac Lake Physicians to the Studies of the Trudeau Foundation. Editorial Committee—Edward N. Packard, M.D., John N. Hayes, M.D., Sidney F. Blanchet, M.D. Foreword by E. R. Baldwin, M.D. Illustrated with 85 engravings. Philadelphia: Lea & Febiger, 1940. Price: $4.00.

This book, which is published under the sponsorship of the Trudeau Foundation, is one of a series of symposia dealing with various aspects of this disease. The authors are recognized as a fountain-head of the knowledge of tuberculosis. It has been in the process of completion for about five years, and surgeons and specialists in tuberculosis have awaited the publication. It is the only American book on pneumothorax excepting that closed chapter in books on general thoracic surgery. It is authoritative, complete and well written.

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Hygiene of Infants and Children*

By Richard M. Smith, M.D.
Boston, Massachusetts



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Presumably infants begin life with health; unfortunately this is not true in every instance, for some of the determining factors which may be unfavorable are transmitted from parents to offspring. Also, after conception has taken place the fetus is susceptible to influences during intra-uterine life, which may result in an unhealthy infant. Again, the process of birth is attended by hazards which may prevent the infant from having a fair start in extra-uterine life. Heredity is a fascinating study with implications which would carry us far afield. There are a few diseases which are definitely hereditary and the physician may be called upon to advise young married couples concerning the advisability of their having children. In regard to hemophilia and a few other diseases, the answer can be definite, but for conditions such as blindness and the degenerative nervous and muscular disorders it is more difficult to be specific. Prenatal care and obstetrical procedures are outside the main course of our discussion this morning but have a direct and significant bearing upon the health of infants and children. We cannot prevent nor control the congenital anomalies which depend upon an abnormal developmental process. We can prevent in nearly every instance the infection of the fetus with syphilis if the infected mother is given adequate treatment beginning in the early months of pregnancy. It is possible also to conduct all confinements so that injuries to mother and infant will be infrequent. Great advances have been made in recent years in obstetrical practice. The neglect to utilize fully our present knowledge may inflict a handicap upon the newborn infant so great that no amount of postnatal care can establish health.

Assuming that an infant is born at term without hereditary, prenatal or birth handicaps, what can be done to preserve his health?

Growth and Development

The most striking characteristics of childhood is change. Conditions which are normal in infancy may be distinctly abnormal if present in older children. The orderly sequence of the processes of growth and development traces a pattern which the child follows from birth to maturity. This does not mean that there is a mold for each age into which every child must fit but it indicates that each child's pattern of growth and development proceeds in an orderly fashion except as this is modified by intrinsic and extrinsic factors, many of which are within our control. It is the observation of this pattern and the exercise of control over the modifying factors which constitute the responsibility and the opportunity of the physician in relation to the hygiene of infants and children.

Growth means increase in size; *development* implies differentiation. Although these two processes are distinct and each is important, they take place simultaneously in the body but at different

*From a paper read at the meeting of the Michigan State Medical Society, Grand Rapids, September 22, 1939.

rates. The various systems of the body grow and develop, each according to an individual pattern. The sum total of these patterns constitutes the growth and development of the body as a whole. Because each system has its own pattern age differences are of great importance. For instance, the nervous system grows and develops very rapidly in infancy; at 5 years of age the brain has reached 95 per cent of its adult size and many of the functions dependent upon development have progressed to an advanced stage. The three-year-old child can see acutely and hear accurately, can talk and understand. The lymphoid tissue increases at a fairly uniform rate up to about the eighth year of life, then remains at a constant level until about the twelfth year and then retrogresses. This fact has a practical application in forming a judgment as to whether tonsillectomy should be recommended. The heart is larger at birth in relation to the whole body than in adult life; its rate of growth is slow throughout childhood. This influences our advice in regard to exercise during the adolescent years when the circulatory system lags behind the growth of the body as a whole. The sex system is relatively quiescent during the first decade of life although recent studies indicate a much earlier beginning of activity than was formerly appreciated. The dramatic changes in physical characteristics and emotional reactions which take place coincidental with the growth and development of this system present many problems for the physician in dealing with the children themselves and with their parents. Other systems have their own patterns, but perhaps enough has been said to indicate the practical importance of knowledge of these matters as a basis for the proper supervision of infants and children.

Periodic Examinations

The opportunity for the physician to supervise the growth and development of infants and children is provided through periodic health examinations. Experience has shown that these examinations should not be merely incidental by-products of a visit made upon a patient who is ill. It is essential that there be time for leisurely consideration of health. Furthermore, when a child is sick the parent is not in a frame of mind to think about those matters which should be discussed. During office hours, where patients are seen under pressure and without previous appointments, is also an unfavorable time for these examinations. Appointments should be made in advance with an ample allowance of time so that both the parent and the doctor will not be hurried and can feel free to devote the time necessary to discuss details, no matter how trivial. Many physicians have found it convenient to set aside one afternoon a week when mothers may bring their children for health examinations. During the first year of life the interval between these examinations should be one month, during the second year, three months, and during the remainder of childhood, six months.

The health examination differs from the examination of a sick child. In the periodic health examination one is concerned primarily in determining the evidences of optimal growth and development or of deviations from the optimal, rather than for signs of disease. The health history is of great importance. One desires to know specifically about the progress of growth and development, tracing from one period to another the child's individual pattern, noting the orderly sequence in the various systems and in the body as a whole, and any significant deviations. One should know also about exposure to those factors which exert an influence upon these patterns.

A part of the time while the history is being taken it is desirable to have the child absent, for the emotional adjustments need careful consideration, and freedom in discussion is essential. The physical examination of the child should be careful and thorough. The physician's approach to the child must be friendly and gentle. It is difficult to secure reliable data if the child is frightened, crying and resistant. The order in which the various parts of the examination are made is determined by the reaction of the child to the different procedures.

Those which are disliked, such as the use of tongue depresser, are best deferred till the last. In addition to the usual examination of the heart, lungs, abdomen, et cetera, special matters are investigated. The height and weight should be noted. The general nutrition is estimated from a consideration of the condition of the skin, mucous membranes, tissue turgor and muscular strength. Body mechanics are judged by posture and the condition of the lower extremities and feet, and by watching the child during walking and activity. Much can be learned by allowing

the child to play about the office while a part of the history is being taken. The examination of the mouth includes a determination of occlusion of the jaws. Malocclusion is of more than an æsthetic significance. It interferes with proper development of the face, particularly the superior maxillæ and prevents good nasal breathing. Vision should be tested before the child enters school. The use of Snellen charts does not constitute a sufficient examination. One thorough testing by a competent ophthalmologist of every child before entering school would determine whether he needed no further examinations or should be reëxamined at intervals or should wear glasses. Hearing is tested by the whisper or watch, and those children with any suspicion of deficiency referred for testing with an audiometer.

The records of these health examinations should be such that the comparison of findings at different visits is facilitated. Some physicians find it helpful to use a printed form with checking of the various items. After the physician has completed the history and physical examination there should be a full discussion with the parent. The physician sees the child only at infrequent intervals and the benefit of this contact depends in large measure upon how successful he is in educating the parents in the care of their child. Education is often tedious and time-consuming. A nurse, especially trained in this field, can do much to supplement the advice of the doctor. She is a useful adjunct to the physician's office and an essential member of the staff of a Child Health Conference.

The more important factors which influence health, concerning which the physician seeks information at the time of the periodic examination, may be grouped into a few main categories: Food, Routine and Habits, Care of the Body, Environment, Emotional Adjustments and Disease.

Food

Food is a factor of primary importance. Great advances have been made in our knowledge in the field of nutrition within the last few years. It is undoubtedly true that many children grew and developed normally before this knowledge was available—natural selection has served the human race well in the choice of food as it still serves the undomesticated animals. Civilization, however, has imposed obstacles to the successful operation of natural selection and many children have suffered in the past and some suffer today from the ill effects of a poor diet. Through animal investigation, laboratory studies and clinical experimentation, the essential food requirements of the infant and child have been reasonably well established. Much more will certainly be discovered but we know enough now so that if this knowledge were universally applied no child need come to maturity with handicaps dependent upon improper feeding. Nature and the art of man have made available all the essentials for an adequate diet. It is obviously impossible in this brief discussion of hygiene to present in detail the proper diet for the infant and child at each age period. The exact articles of food to be recommended vary widely according to geographic location and economic conditions, but the basic requirements of the diet remain constant within a range of individual variation whatever the place of residence and the social status of the child.

Two major matters need consideration—the diet should contain all of the essential food elements and these should be given in adequate amounts and in proper relationship to each other. The essential food elements are the same for every child—the articles in the diet from which they are derived will differ according to circumstances.

The quantities of the elements needed by a particular infant or child will vary, depending upon individual factors. The physician's task is to know what the essential food elements are, the requirements in relation to each element, and from what articles of food they may be derived. He can then make provision for a diet which supplies the elements in adequate amounts. The truth of the old saying, "You can lead a horse to water but you can't make him drink," has a direct bearing upon the feeding of children. Eating habits need consideration quite as much as the composition of the diet. Appetite is the natural response of the body to the need for food. This instinctive mechanism will function unless it is destroyed by faulty training or by disease. The fear that an infant will not take enough food leads many mothers to force feedings against the inclination of the infant. This almost invariably destroys the normal working of the physiologic processes and results

in faulty eating habits, which persist far beyond the period of infancy.

It is rarely, except in the presence of disease or some abnormality, that an infant's appetite is not a satisfactory guide to the amount of food which should be given.

If quantities eaten are small, the quality of the food may be modified so that the infant receives enough of the essential food elements to progress normally according to pattern. Regularity of intervals, bodily comfort, freedom from environmental distractions, lack of nervous tension in the mother or nurse, and other matters, contribute to the establishment of good eating habits. These apparently small details are of major importance in the feeding of infants and set the stage for an easy or difficult history in the feeding record of the child.

Routine

Much has been written about the routine of infant and child care. There has been misunderstanding in the interpretation of what is meant by the term and too great emphasis has been placed upon rigidity and too little appreciation has been given to orderliness in contrast to haphazard procedure. The alteration of activity and rest and the orderly performance of the daily routine are conducive not only to healthy physical life but establish in the child a feeling of stability in relation to his environment, which is essential to health. Rest and activity are complementary to one another and should alternate in such a manner as to foster normal growth and development. It is difficult for adults to adjust their thinking on these matters to the level of childhood standards. Parents often fail to realize that sleep and exercise have a direct influence upon health.

Sleep

Sleep is essential for the continuance of life. Animals and human beings will die if deprived of sleep as surely as if deprived of food. Individual requirements for sleep vary but it is safe to say that there is little likelihood that infants and children will get too much sleep, and there is real danger to health if they get too little. The common deterrent in children to sufficient sleep is late bed-time—due to a late evening meal with the family, to too long a play-time after supper, to radio programs, to following the practice of neighbors' children, and to many other equally unconvincing reasons. Parents will frankly admit in not a few instances that it is easier to let their children sit up beyond the proper bed hour than to have an unpleasant scene in overcoming the child's resistance. This is an admission of faulty early training and that the physician's education of the parents has been unsuccessful. Good sleeping habits like good eating habits begin in infancy. Orderliness establishes a routine which will persist beyond infancy unless broken by irregular interruption. Not only does this apply to the long period of sleep at night but also to rest and sleep in the middle of the day.

If the habit of breaking the day's activity after the mid-day meal is well established in the first two years of life it will persist up to school age, if it is taken for granted as a part of the day's routine. Not all children will sleep at this time every day but a large number of them will sleep frequently if a quiet rest period is given. This desirable habit is more often interrupted at the parent's suggestion than at the child's, on the erroneous assumption that it interferes with sleep at night. It has been demonstrated conclusively that children who do not sleep in the middle of the day lose that much sleep in the twenty-four hours.

We have spoken of habits in relation to eating and sleeping. So much of adult routine consists of habit performance that we forget that habits are acquired one by one during infancy and childhood. We start life with a clean habit slate but very early the grooves of action and thinking become so firmly established that modification is increasingly difficult. Bad habits become fixed as easily as good habits. In every aspect of the child's life our endeavor is exercised to fix those habits which are conducive to health and to avoid the beginning of habits which are detrimental to health.

Exercise

Exercise is a fundamental requirement of health. The degree and form of physical activity needed by a particular individual vary within a wide range but some use of the muscular system is necessary for optimal bodily function. The muscles grow by steady increment throughout childhood but the different groups develop, each according to its own pattern. Use stimulates

muscular growth and strong muscles require strong bones for their attachments. The large muscles performing the coarser movements grow and develop earlier than the small muscles controlling the finely adjusted movements. Some groups of muscles receive stimulation without conscious effort, as for example, those in the legs by walking and running. Other groups need for their proper development and growth some deliberate planning. This is particularly true of those muscle groups which perform the more delicate manipulations.

It follows from what has been said that children need some assistance in directing their physical activity if well-rounded muscular growth is to be attained. And also that this activity should be graduated to the age of the child and the stage of muscular development. It is sometimes difficult for the adult to realize how much exercise a child gets from activities which to them appear slight. If one watches thoughtfully an infant learning to walk, one may appreciate that he is expending a tremendous amount of energy in performing a process which to adults is automatic. Or count the steps that a small child takes in walking one hundred yards and calculate how far the adult would go in taking that number of steps. These simple observations illustrate the kind of reasoning which the physician may use in talking to parents. The physician knows that muscular activity results in definite chemical changes in the body and that there are physiologic reactions associated with fatigue due to overactivity. This knowledge forms the basis for medical opinion in determining the amount of exercise which is desirable. Simple illustrations, however, will help the parent more than scientific facts. The implications of these suggestions concerning muscular activity are far-reaching. They carry over into sports, competitive athletics, and the wide range of recreational activities of the child, from piling blocks one upon the other to college football.

The two principles to remember are the value of exercise in stimulating muscular growth and the necessity of adapting activity to the child's developmental capacity.

Environment

The effect of the physical environment upon health requires a word of consideration. Most of the infant's life and much of the older child's is spent in the home. Housing conditions are intimately associated with economic status but how infrequently any consideration is given in selecting a home to its possible influence upon health. The beneficial effects of the sun's rays are well known and fortunately widely appreciated. Congestion and overcrowding favor the spread of infectious disease and prevent freedom of activity. Country life has many advantages from the health viewpoint. These must be weighed against the limitations in educational and other opportunities.

Mental Health

Thus far we have spoken as if health were entirely a physical matter. We know, however, that the mind and the emotions are intimately and inseparably associated with physical bodily phenomena. It is impossible to define a clear line of demarcation between physical and mental health—they are only parts of the whole. In everything which has been said about the health history and examination, and about food, rest, environment and exercise, the mental and emotional connotations are of prime significance.

The mental equipment or intelligence of the child is not within our control but the utilization of the given intelligence is susceptible to direction.

The physician cannot claim to be an educational expert but he should be familiar with present-day pedagogic conceptions if he is to exercise his full opportunity for the health of the child. We must remember that the school claims an increasing amount of the child's waking hours as his age advances. This environment has many important effects on both the mind and the body of the child and upon his emotional adjustments to life. The physician can exert a healthful influence upon the school life of the child if he is awake to the possibilities.

The emotions play a major rôle in relation to health. Their influence begins in early infancy. Habits are closely associated with the emotional life.

A feeling of stability in a relation to the outside world is an almost essential background for satisfactory progress in growth and development. Uncertainty and fear act as deterrents to health.

All physicians cannot be psychiatrists but

every doctor appreciates the importance of psychologic factors in health. He can attempt to guide parents to lead their children along lines of sane emotional adjustments and to be alert to detect the early signs of maladjustments. A little wise counsel given early may avert serious catastrophes in late childhood and adult life.

Summary

Without discussing in detail the fundamental knowledge relating to growth and development there has been presented the method of approach to be used by the physician interested in the hygiene of infants and children. It has been stated that fundamental knowledge on growth and development is available and that the physician must be familiar with it. It has been pointed out that a careful health history and periodic physical examinations furnish the starting point from which one proceeds in the practical application of this knowledge to the individual child. A few of the important factors which influence growth and development have been discussed in outline. Attention has been called to the intimate relationship between the physical and emotional aspects of health.

The content of medical practice has changed remarkably in the last twenty-five years. Further changes are bound to take place in the future. Medical science is rapidly eliminating many diseases, the treatment of which formerly occupied a large part of the physician's time. Diphtheria and the acute gastro-intestinal disturbances of infants have largely disappeared. Typhoid fever in many parts of the country is a rare disease. The death rate from tuberculosis is constantly falling.

The physician of the future will devote less time to curative medicine and more to prevention.

In the hygiene of infants and children there is an unmet need for medical practice. This field offers a great opportunity for service—calling for scientific training and keen judgment. If we cultivate this field with diligence and intelligence, future generations will rise up to call us "blessed."

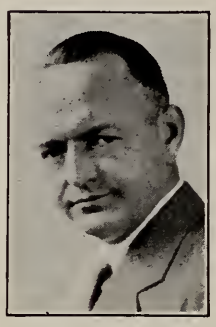
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Occiput Posterior

Incidence, Significance, and Management*

By L. A. Calkins, M.D., Ph.D.

Department of Obstetrics and Gynecology, University of Kansas Hospital
Kansas City, Kansas



L. A. Calkins, M.D.

M.D., University of Minnesota, 1919; M.S., University of Minnesota 1920; Ph.D., University of Minnesota, 1921. Assistant Professor Obstetrics and Gynecology, University of Minnesota, 1921-24; Professor of Obstetrics and Gynecology, University of Virginia, Department of Medicine, 1924-29; Professor Obstetrics and Gynecology, University of Kansas, Medical School, 1929 to present time. Co-author with R. E. Scammon "Growth in the Fetal Period." Member Central Association of Obstetricians and Gynecologists and of American Association of Anatomists; Fellow American Gynecological Society, American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

■ The medical profession, both general practitioners and specialists, seems to have rather suddenly acquired a certain "occiput posterior consciousness" and dread of this position. Ill-advised attempts at delivery, even before the cervix is completely dilated, have resulted in stillbirths in rather alarming numbers. This "fear" of occiput posterior has resulted in four intranatal stillbirths in this present series. Interference was undertaken by the physician with the cervix only about half dilated and delivery was attempted by forceful traction with forceps extending over a period of one to three hours after which the patient was sent to our institution.

I therefore attempted to analyze our experience, but soon found that our diagnoses of position were not sufficiently accurate to permit a critical analysis. Reasonable care had been used in making these diagnoses, but there were too many instances where the examination had been made by an intern and had not been checked by a more experienced observer. In other patients the attending man had arrived rather late and, because external rotation was toward the left, had decided that the presentation must have been O.L.A. In some cases the patient had arrived at the hospital rather late in labor with the cervix considerably dilated and the head at, or near, the pelvic floor. I therefore decided

*Read at the annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 21, 1939.

that, if accurate statistics as to the incidence of occiput posterior were to be obtained, there must be a more rigid and clear-cut system for arriving at the proper diagnosis. I also realized that unless we knew accurately the incidence of occiput posterior I could not come to a rational conclusion as to the results or proper methods of management. **I therefore started in 1933 to collect an accurate series of cases and have rigidly adhered to the following plan of diagnosis: (1) The diagnosis should be made, in addition to the usual abdominal palpation, by internal examination (rectal or vaginal) by careful palpation of the suture lines and fontanels; (2) The diagnosis of the intern should not be accepted unless checked by a more experienced observer; (3) The diagnosis should be made as early in labor as possible and should be checked repeatedly at intervals in the labor; (4) If, when the patient was first seen, the labor had progressed to complete dilatation and the presenting point was at, or near, the pelvic floor, no diagnosis except "unclassified cephalic" should be made.**

Since the inception of this plan I have a more accurate idea of the frequency of the various positions than ever before. All errors in diagnosis have not been eliminated, of course, but I feel that the gross error in the present figures is probably not greater than 5 per cent. It should be noted that of the total of 2,446 patients here reported, 131 are classified as "cephalic." This includes not only patients who were seen late in labor but also others upon whom the diagnosis has not been accurately made, either owing to a large caput or through paucity of examinations. It is thought that several of these were actually occiput posterior, but the diagnosis could not be accurately established.

One hundred eighty-five patients had diagnoses of brow, face, bregma, shoulder, breech or twins and therefore have been excluded from this discussion of occiput presentations. This leaves a total of 2,130 occiput presentations in which the diagnoses were carefully made and therefore are considered reliable for accurate classification. In each instance the direction of the sagittal suture and the position of the posterior fontanel were recorded on the chart early in labor. In a vast majority of these cases this record was made previous to six centimeters dilatation. I have considered as occiput anterior only those cases where the sagittal suture was anterior to, or exactly in the transverse, and I have similarly designated as occiput posterior only those cases where the small fontanel was actually posterior to the transverse diameter of the pelvis. This classification is simpler than that more complex one where transverse positions are recognized and recorded, therefore making six groups instead of four.*

Incidence of Positions

The records since using this method of diagnosis and plan of classification are as follows:

TABLE I

O.L.A.	939	Total
O.D.P.	702	
O.L.P.	326	2130
O.D.A.	163	

These figures stand in sharp contrast with those reported by others. The right occipito-anterior position (O.D.A.) in this series is decidedly the least common position, instead of ranking next in frequency to the left occipito-anterior (O.L.A.) The left occipito-posterior position (O.L.P.) is much more common than previously noted except in Dr. Vaux's[3] series. Presentation in the left oblique diameter occurred 489 times, as against 1,641 cases in the right oblique diameter. This is in line with previous statements. The striking thing, however, is that there are 1,028 cases of occiput posterior as against 1,102 cases of occiput anterior. In primiparas, occiput posterior actually occurred a few more times (687) than occiput anterior (677). From a strictly biological point of view it would hardly seem possible that occiput posterior could be a very distinct abnormality if it occurs with equal, or almost equal, frequency with occiput anterior. It is my firm conviction that if diagnoses are made with the care indicated above occiput posterior will be found to occur with almost equal frequency with occiput anterior and that the four positions will occur roughly as follows:

O.L.A.	5+
O.D.P.	4
O.L.P.	2
O.D.A.	1
Total	12+

*My cases were so recorded, however, that a classification into the anterior, transverse, and posterior is readily available and I offer it in the table below for purposes of comparison with other authors' series.

	Primiparas	Multiparas	Total
O.L.A.	344	205	549
O.L.T.	214	98	312
O.L.P.	100	36	136
O.D.P.	256	123	379
O.D.T.	165	78	243
O.D.A.	44	25	69

In a previous publication[2] I attempted to explain this relative incidence on the basis that the presence of the rectum in the left posterior quadrant of the pelvis tended to prevent the occurrence of O.L.P. in about one-third of the cases where it might, otherwise, have occurred if governed only by pure chance. I further stated that the presence of the bladder in the right anterior quadrant of the pelvis tended to prevent the occurrence of right occipito-anterior (O.D.A.) in about two-thirds of the instances where it might have occurred were no inhibiting factor present. Dextrotorsion of the uterus may also have something to do with the more frequent occurrence of presentations in the right oblique diameter of the pelvis.

Fetal Mortality

In the 2,130 cases in this series, there were seventy-seven fetal deaths. This figure includes antepartum deaths, as well as stillbirths and neonatal deaths. This is a fetal mortality rate of 3.6 per cent. In 1,102 occiput anteriors there were forty-eight fetal and newly born deaths, a rate of 4.3 per cent, whereas in 1,028 occiput posteriors twenty-nine babies were lost, a rate of 2.8 per cent. Believing that occiput anterior is not actually more dangerous for the baby than is occiput posterior, I have tried to analyze this fetal mortality rate. By excluding antepartum deaths, I have the following figures:

TABLE II

	Cases	Deaths	Rate
Occiput anterior	1084	30	2.8%
Occiput posterior.....	1024	25	2.4%

Among primiparas there were 677 occiput anteriors with a loss of twenty-three babies, a rate of 3.4 per cent; whereas in 687 occiput posteriors nineteen babies were lost, a rate of 2.8 per cent. If white primiparas only were considered, 518 occiput anteriors with sixteen infant deaths showed a loss of 3.1 per cent. Twelve babies out of the 574 occiput posteriors were lost, giving a rate of 2.1 per cent, the lowest I have ever seen except that of Dr. Bill's[1] privately conducted cases.* The slightly more favorable fetal mortality rate for occiput posterior as indicated by these figures would not necessarily be repeated in another similar series. We believe, however, that any properly conducted series of cases will not show a rate unfavorable to occiput posterior.†

*This series is about four-fifths clinical and one-fifth private; about four-fifths white and one-fifth colored.

Maternal Morbidity

I employed the American Committee on Maternal Welfare standard for computing morbidity and found 147 of the 1,102 occiput anteriors abnormal by this standard. This is a rate of 13.3 per cent. The occiput posterior cases showed very similar figures: 146 out of 1,028, a rate of 14.2 per cent. Occiput right posterior showed an identical rate with occiput left anterior. The O.L.P. cases had a somewhat higher rate, 15.6 per cent. Whether this difference is enough to be significant would seem to be open to question. Among primiparas the difference is a little greater: occiput anterior, 14.6; occiput posterior, 17.3, the occiput left posterior presentation being again responsible for the difference. This difference is not nearly so great as that between white and colored persons. The over-all-rate for 1,092 white patients was 15 per cent; for the 272 colored patients, 19.9 per cent. If there is any increased morbidity incidental to occiput posterior, the difference is not great and it would seem to be of little practical importance.*

Length of Labor

Primiparas.—The average length of the first stage of labor for occiput anteriors was 10.8 hours; for occiput posteriors 12.5 hours. This is a very definite difference, but considerably less than the figures usually quoted. Careful inspection of these data further reveals that a large part of this difference in the averages is due to the fact that a first stage labor prolonged beyond twenty-four hours was more common in occiput posterior than in occiput anterior. Thirty-seven

†Causes of Fetal Mortality:

Prematurity	15
Placenta Previa and Premature Separation	14
Severe Toxemia	13
Syphilis	9
Trauma	7
Anomaly	3
Prolapsed Cord	2
Miscellaneous and Unknown	14
Total	77

*The types of morbidity in this series were as follows:

		Pelvic	No Diagnosis	Extra Pelvic	Total
Primiparas	O.L.A.	9	39	35	83
	O.D.P.	7	35	31	73
	O.L.P.	7	14	25	46
	O.D.A.	0	6	10	16
Multiparas	O.L.A.	7	14	22	43
	O.D.P.	3	6	12	21
	O.L.P.	0	3	2	5
	O.D.A.	1	1	3	5

There were four deaths: one primipara, O.D.P.: G.C. peritonitis (proven at autopsy); one primipara, O.L.P.: temperature 104 on admission, eclampsia, aspiration abscess of lung (autopsy); one multipara, O.L.A.: admitted with broken neck from automobile accident; one multipara, O.D.A.: eclampsia.

of our 668 occiput anteriors had a first stage of twenty-four hours or more (5.5 per cent of the cases); whereas fifty-eight of the occiput posteriors had a similar prolongation of the first stage (8.6 per cent). I offer no explanation of the greater frequency of prolonged first stage at this time for it will require considerable further study. If these instances of prolonged labor are eliminated, I find the average of the remaining 631 occiput anteriors to be 9.6 hours, and the 615 occiput posteriors to be 10.1 hours. This small difference of one-half hour could hardly be considered to be of very great clinical importance. The second stage showed a small comparative difference between occiput anterior and occiput posterior. Of the 554 occiput anteriors delivered spontaneously, the average duration of the second stage of labor was 51.9 minutes, while the average for the 534 occiput posteriors delivered spontaneously was 65.3—a difference of about thirteen minutes. Here again, however, I noted that prolongation of the second stage beyond two hours was more common in occiput posterior (52 instances) than in occiput anterior (25 instances). **It would seem that "poor labor pains" is the most frequent explanation of prolongation of the second stage, but it is my impression, at present, that there are other factors which should also be considered. If these few cases of prolonged second stage are eliminated, the average of the occiput anteriors is 47.2 minutes and of the occiput posteriors, 52.8, a difference of only about five and one-half minutes, which is a negligible quantity.**

Multiparas.—The average duration of the first stage in occiput anterior was 6.8 hours; in occiput posterior, 7.7 hours. This difference of about one hour seems to be quite constant and the explanation is not to be found in the incidence of prolonged labor. There were only nine instances in which the first stage exceeded twenty-four hours in occiput posterior. The duration of the second stage of those spontaneously delivered (all but thirty of the 736 cases) was 19.6 minutes in occiput anterior and 24.6 minutes in occiput posterior—a difference of five minutes.

In primiparas, therefore, occiput posteriors have a first stage about one and one-half hours longer than occiput anteriors and cause a second stage prolongation of about thirteen minutes. In multiparas the first stage is one hour longer, and the second stage five minutes longer. At least part of the reason for the longer average first stage in primiparas is the fact that truly prolonged labor (more than twenty-four hours) is more common in occiput posterior.

Operative Delivery

The number of operative deliveries in multiparas was too small to permit any accurate analysis. Among the primiparas I have been perhaps too liberal in the use of low forceps and stand ready to accept any criticism on that score. Among the 1,364 primiparas there were fifteen cesarean sections, all done for elective reasons and in no instance because of the presentation. Of 1,341 primiparas delivered spontaneously or by vaginal operative procedure (excluding eight cases with incomplete records) I find that 1,088 were delivered spontaneously; twenty-two by median forceps; 225 by low forceps; three by version; three by craniotomy. Among the occiput anteriors, there were 114 operative deliveries as against 139 among the occiput posteriors. It would seem that occiput left posterior required assistance more often than occiput right posterior.

TABLE III

	Total	Spontaneous	Operative	% Operative
O.L.A.	563	467	96	17.1%
O.D.P.	437	364	73	16.6%
O.L.P.	236	170	66	27.9%
O.D.A.	105	87	18	17.1%

It should be noted that the same discrepancy, unfavorable to O.L.P., was true of the length of labor (13.1 hours for the first stage, as against 12.1 hours for O.D.P.) In the last year I have learned that it is even more important to keep the bladder empty in O.L.P. presentation than in any of the other three. Perhaps if I had been more diligent in this respect, as this series of cases was being observed, the average length of the first stage of O.L.P. might have been considerably reduced and fewer operative deliveries might have been found necessary. My present attitude is that operative interference in occiput right posterior should not be more frequently necessary than in occiput anterior. If the first stage and the early part of the second stage of labor in O.L.P. be very carefully managed, operative intervention should be indicated with slightly greater frequency than in occiput anterior.

Internal Rotation

Primiparas.—Spontaneous internal rotation occurred in 539 of the 563 O.L.A's (95.7 per cent). Two of the remaining twenty-four cases delivered spontaneously without rotation. In four patients, median forceps rotation and delivery and in the other eighteen low forceps rotation and delivery were the procedures used. In not all of these could it be said that the position "persisted." In one patient delivery was done after the patient was in the second stage only twelve minutes, and another had only fifteen minutes of second stage pains. In the majority of these twenty-two operative deliveries, the patient had been in the second stage at least one hour and in a few cases much longer. It would seem logical to state that in this series failure of spontaneous internal rotation occurred in about 4 per cent of the O.L.A. presentations. In O.D.A. six patients failed to produce spontaneous internal rotation. Three of these were delivered spontaneously and the others with low forceps rotation and delivery. **The shortest second stage was thirty-three minutes and three of the six patients were in the second stage more than one hour, the longest being a neglected case with five hours of second stage pains. Again, fully 4% failed to exhibit spontaneous internal rotation.**

In the O.D.P. cases, 410 of the 437 patients had spontaneous internal rotation—93.8%. Of the remaining twenty-seven patients, eight delivered spontaneously with the occiput posterior. The second stage (in these eight) varied in length from twenty-two minutes to two hours and twenty minutes. Six out of the eight cases had second stages of one and one-half hours or less. The remaining nineteen patients were delivered by operative procedure: Six median forceps and thirteen low forceps. It should be noted, however, that one of these patients was delivered after only three minutes in the second stage and two others after only thirty minutes. Two babies in this group were lost—one had been dead several days before the onset of labor and the other was in a patient with complete placenta previa. There was no difficulty in the labor of this latter case. Low forceps were used to lift the head over the perineum after a seventy-nine minute second stage. **Careful study of these twenty-seven unrotated occiput right posteriors would seem to indicate that "persistent" occiput posterior on the right side occurs in about 4½ per cent of primiparas, and in one-third of these spontaneous delivery can be expected after a relatively short second stage.**

In the O.L.P. patients, nineteen (8.0 per cent) of the 236 patients either delivered spontaneously in the posterior position (six instances) or were delivered by operative procedure before internal rotation had taken place. One of these was median forceps and the other twelve were low forceps. Three of these patients had been in the second stage less than one-half hour and delivery was undertaken because of disturbance of the fetal heart. Approximately six per cent then, of occiput left posterior in primiparas either failed to undergo spontaneous internal rotation or were delivered before such rotation had taken place. Nearly half of these were delivered spontaneously and there was only one fetal death in this group. The local physician had tried for two hours to deliver the patient with forceps when the cervix was only four centimeters dilated and then, after death of the baby, had sent the patient into our institution.

It might be pointed out that in nine of the occiput right posteriors and four of the occiput left posteriors the low forceps delivery was done without rotation of the head, without serious trauma to the mother, and with no apparent injury to the baby. The delivery was easily accomplished in each of the thirteen cases. (Respective birth weights were: 2,565, 2,835, 2,865, 2,880, 3,025, 3,070, 3,100, 3,140, 3,175, 3,410, 3,425, 3,575, and 4,030 grams.

In compiling these records I did not at first realize the importance of noting whether spontaneous internal rotation always occurred in the occiput anterior cases and hence the figures, above quoted, no doubt represent a somewhat more frequent occurrence of spontaneous internal rotation in occiput anterior than was actually the case. In the last two years I have noted that a number of these patients delivered without internal rotation. So far as this series shows, it would seem that spontaneous internal rotation occurred in about 96 per cent of occiput anterior and about 95 per cent of occiput posterior. Operative delivery is necessary—*perhaps because of failure of rotation*—in about 3 per cent of occiput anteriors and 3 to 3½ per cent of occiput posteriors.

Multiparas.—Among the multiparas there were four O.D.A.'s, three O.L.A.'s, five O.L.P.'s and thirteen O.D.P.'s which either failed to rotate

spontaneously or were delivered before rotation took place. Eighteen of these patients delivered spontaneously. There were five median forceps and two low forceps with only one fetal death and that, again, was due to an unsuccessful forceps before admission to the hospital. Failure of spontaneous internal rotation could not be said to have been a problem in more than one per cent of the multiparas in this series.

Time of Spontaneous Internal Rotation

Primiparas.—A careful attempt was made to note the exact time at which internal rotation took place and in 1,138 patients out of the 1,364 the records showed rather clearly when rotation occurred. In 276 it was accomplished at or before complete dilatation of the cervix, in 398 during the descent of the head to the pelvic floor, in 393 only after the head had been on the pelvic floor for some time and in seventy-one spontaneous internal rotation did not take place. The proportion occurring at the various stages was roughly the same for all positions except O.D.A., where rotation was rarely produced until the head was on the pelvic floor or coming through the vulva. The fact that over four hundred of the 1,364 patients did not show internal rotation until after the head was on the pelvic floor seems quite significant.

Summary

Occiput posterior and occiput anterior occurred with about equal frequency in this series of 2,130 cases, where more than the usual care was taken to arrive at an early and accurate diagnosis. Occiput posterior was characterized by a somewhat longer first stage of labor. The difference, however, is not over one to one and one-half hours and the first stage in occiput right posterior is probably not much, if any, longer than in occiput anterior. The difference in the second stage is a matter of a few minutes only. Operative delivery, particularly low forceps, is more frequent in occiput left posterior than in the other three positions by about three cases in each one hundred. **Fetal mortality is no greater in occiput posterior than in occiput anterior under the plan of management employed for this series. It should be noted that no pituitary extract was given previous to the delivery of the placenta and anesthesia was confined to nitrous oxide plus morphine on indication. Maternal morbidity was about 3 per cent greater for occiput left posterior than for the other three positions.** Spontaneous internal rotation occurred in about 94 per cent of occiput posterior as compared with not over 96 per cent of occiput anterior. Inasmuch as nearly half of the unrotated babies were delivered spontaneously without injury to the mother and without a single fetal death, the problem of failure of spontaneous internal rotation would seem to be not greater than three per cent for occiput anterior and three and one-half per cent for occiput posterior. My present attitude toward occiput posterior is identical to my attitude toward occiput anterior, except that I realize that patience to the extent of about one hour more of waiting is required.

Conclusions

I should not want to give the impression that trouble is never encountered with occiput posterior. What I would like to point out is that trouble occurs with occiput anterior almost as commonly as with occiput posterior (3 per cent compared to 3.5 per cent). Inability of the patient to deliver herself spontaneously of an occiput posterior is, for the most part, due to causes other than the occiput posterior presentation.

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DEDICATION OF OSLER MEMORIAL TO BE HELD AT BLOCKLEY

The old autopsy house where Osler worked at Blockley has been restored as the Osler Memorial Building, and will be dedicated on the grounds of the Philadelphia General Hospital, at Curie Avenue, near 34th and Pine Streets, Philadelphia, Pa., at 2 P.M. one June 8, 1940.

Original furnishings, including the necropsy table, have been collected. The painting by Dean Cornwell, N.A., of New York, entitled "Osler at old Blockley," later to be hung in the building will be on exhibition during the celebration.

There are facilities in the building for the housing and preservation of relics of old Blockley, as well as Osleriana. The Committee would welcome any additions to this collection.

A cordial invitation is extended to those who are interested, and especially those who are planning to attend the American Medical Association Convention in New York City June 10th to 14th.

Arthritis

Acute Gonococcal and Gouty*

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■ Two types of acute inflammatory joint disease, gonococcal arthritis and gouty arthritis, will be discussed, not because these are the most common forms of arthritis but because therapy for each type differs distinctly from that of other types of arthritis; because treatment is so effective when properly administered early in the course of the disease and because failure to recognize each results in much needless suffering and incapacitation, possibly permanent loss of joint function.

Gonococcal Arthritis

Gonococcal arthritis occurs in about 3 per cent of cases of gonorrhea. Pathogenesis is not entirely understood. Most students of arthritis believe it is always a blood borne metastatic infection in the joints. However, Keefer[6] found bacteremia in only three of 140 cases of gonorrhea in the absence of endocarditis. In only 25 per cent of cases is the joint fluid found to contain gonococci. However, it has been demonstrated that even when the synovial fluid is sterile, gonococci may be present in the subsynovial tissue.[6] The joint fluid is practically always purulent when it contains gonococci—and in such cases rapid destruction of articular cartilage occurs, and if unchecked, complete ankylosis may result.

History.—The usual history of gonococcal arthritis is: Between ten and twenty days after onset of gonorrhea the patient notices marked malaise, aching of the entire body, especially generalized arthralgia. There is moderately high fever, leukocytosis and increased erythrocyte sedimentation rate. After a few days the general arthralgia subsides and classical signs of inflammation develop at one or more joints. Contrary to prevalent statements, gonococcal arthritis is usually polyarticular. Most any joint may be attacked. Sometimes there may be a latent period of several months or years between the original infection and the development of arthritis, but it is more common that the joint disease occurs with exacerbation of urogenital infection or with fresh infection.

Complications.—Other complications of gonorrhea are often found with arthritis. The most common is bilateral catarrhal conjunctivitis which occurs in about 20 per cent of cases. This practically always disappears without residual. Less often, iridocyclitis occurs; it may lead to permanent impairment of vision. Tendonitis, myositis, fascitis, bursitis, tenosynovitis, and periostitis, especially of the calcaneal bone, frequently occur with gonococcal arthritis. Calcaneal spurs and painful heels frequently result—but gonorrhea is not the only cause for either. A keratotic skin lesion, keratoderma blenorrhagica, occurs in about 3 per cent of cases of gonococcal arthritis. It is more common in males, and usually clears up rapidly with the gonorrhea. When any of the above complications are observed with inflammatory joint disease one should immediately suspect gonorrhea.

Diagnosis.—In every patient with acute arthritis inquiry regarding disease of the urogenital tract should be made. Criteria for diagnosis of gonococcal arthritis should be: (1) A history of recent gonorrhea, (2) evidence of genital gonorrhea, (3) history of arthritis and characteristic joint findings, (4) demonstration of gonococci in discharge or synovial fluid. Proof of the diagnosis ultimately depends upon isolation of gono-

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†The Rackham Arthritis Research Unit is supported by the Horace H. Rackham School of Graduate Studies, of the University of Michigan.

cocci. Culture of suspected material has often been positive when examination of stained material was negative, consequently cultures should be made if direct examination is negative. Probable gonococcal arthritis should be diagnosed when the first three criteria exist. A positive gonococcus complement fixation test on serum or synovial fluid is a diagnostic aid; this test, however, is not infallible. It is positive in only about 85 per cent of proven cases of gonococcal arthritis. Occasionally false positive reactions occur. The fixation test commonly remains negative from three to six weeks after onset of gonorrhea. Understanding these limitations, the test is of definite value.

Whenever the diagnosis of active gonococcal arthritis is considered possible or likely, but proof cannot be obtained, a test of therapy as hereinafter described should be instituted at once, for results are so satisfactory and delay of only a few weeks in therapy may allow the development of joint destruction, especially in purulent gonococcal joints.

Treatment of Gonococcal Arthritis

Treatment has recently been revolutionized by the advent of two new therapeutic agents: sulfanilamide and related chemicals, and controlled fever.

Sulfanilamide properly administered has proven to be the treatment of choice. This drug diffuses into synovial fluid and exists there in essentially the same concentration as in the blood. Adequate drug concentration will sterilize the joint fluid within a few days. Opinion differs concerning the method of administration of the drug, especially in regard to dosage. Keefer[7] has recently reported *in vitro* and *in vivo* studies which show that a drug concentration of at least 5 mg. per cent is needed to effect joint sterilization. His results were excellent although sterilization of genital foci was not always effected. Coggeshall and Bauer[2] have reported that with larger doses, sufficient to maintain blood stream concentrations of 10 or more mg. per cent, *all* cases responded with prompt clinical and *bacteriologic* cures. Smaller doses previously had been unsuccessful in some of their cases.

Our experience coincides with that of Coggeshall and Bauer. **We, therefore, recommend enough sulfanilamide to maintain a blood concentration of 10 or more mg. per 100 c.c. In most persons a daily dose of 40 mg. per pound body weight will produce the desired results. This makes a total daily dose for an adult about 6 grams. We commonly give one-third of the calculated daily dose initially, a third four hours and again eight hours later, thereafter one-sixth of the twenty-four hour dose every four hours through the day and night. An equal amount of sodium bicarbonate is given with each dose of sulfanilamide. The treatment should be continued for several days after all foci of gonococcal infection are sterilized. This often requires two weeks or more.** In acute cases definite clinical improvement begins within two or three days' time with disappearance of fever, subsidence of joint inflammation and later by reduction of erythrocyte sedimentation rate.

Great caution is required when giving these large doses of sulanilamide. The patient should be kept in bed, away from direct sunlight, and must be seen daily. Blood and urine examination should be made every two or three days. Sulfanilamide concentration of the blood should be determined every two or three days to insure proper dosage. Should toxicity develop the drug should immediately be stopped.

Some persons who cannot tolerate the amount of sulfanilamide needed may tolerate neoprontosil. Sulfapyridine has been effective in the few cases in which we have used it—but we see no advantage in it and it often produces more severe gastro-intestinal symptoms. Recent studies suggest that parenteral administration of promin* may be very satisfactory. Of course relief of symptoms and measures to restore joint function should be included in the therapeutic program.

The need for continuation of sulfanilamide therapy ten to fourteen days or longer in most cases is emphasized by the experience of one patient with knee joint disease who was treated first with amounts of sulfanilamide sufficient to maintain a blood concentration of only about 6 mg. per cent for seven days—during which time the joint fluid became sterile and inflammation greatly decreased. The drug was stopped and joint exercise begun. Two days later the knee was injured only slightly when the patient was walking with crutches; during the following

*Kindly supplied by Parke, Davis & Company, Detroit, Michigan. Promin is a sodium salt of dextrose sulfonate available at present only for clinical evaluation, not yet marketed.

twenty-four hours joint inflammation and fever recurred and the joint fluid two days later was found to contain more gonococci and pus cells than ever before. It is obvious the infection had not been completely eradicated—and the trauma had lighted up the process. A second course of sulfanilamide was immediately begun in the manner above recommended. The response was slower but entirely satisfactory.

Another case illustrates the necessity for early recognition and proper treatment of gonococcal arthritis:

A farmer, aged fifty, injured his right wrist when trying to hold a calf. Within twenty-four hours inflammation of the wrist began and within a few days it became severe. Fever of from one to three degrees occurred. Elevation of the affected part and application of heat were ineffectual. On the thirtieth day of illness he was seen in a hospital where a diagnosis of "cellulitis" was made. Incision over what was thought to be a fluctuant area on the volar surface revealed no pus. After this surgical treatment it was learned that the patient had gonorrheal urethritis two years previously, that urethral discharge occurred at intervals since, that for about two weeks prior to the wrist injury he had had urethral discharge which contained gonococci and that he was being treated for gonorrhea when he entered the hospital.

The patient was first seen in the Rackham Arthritis Research Unit on the forty-fourth day of illness. Gonorrheal arthritis was diagnosed. Gonococci were found in the urethral discharge. The serum gonococcus complement fixation test was strongly positive. Roentgenograms (Fig. 1) taken on the thirtieth, thirty-seventh, and forty-first day of the wrist disease show the marked degree of joint destruction present in the first film and the rapid increase in subsequent films. This is characteristic of purulent gonococcal arthritis. Treatment as above described was instituted. Sterilization of the urethral focus was promptly effected. Inflammation at the wrist soon subsided. However, very little motion of the wrist returned because of the extensive joint destruction.

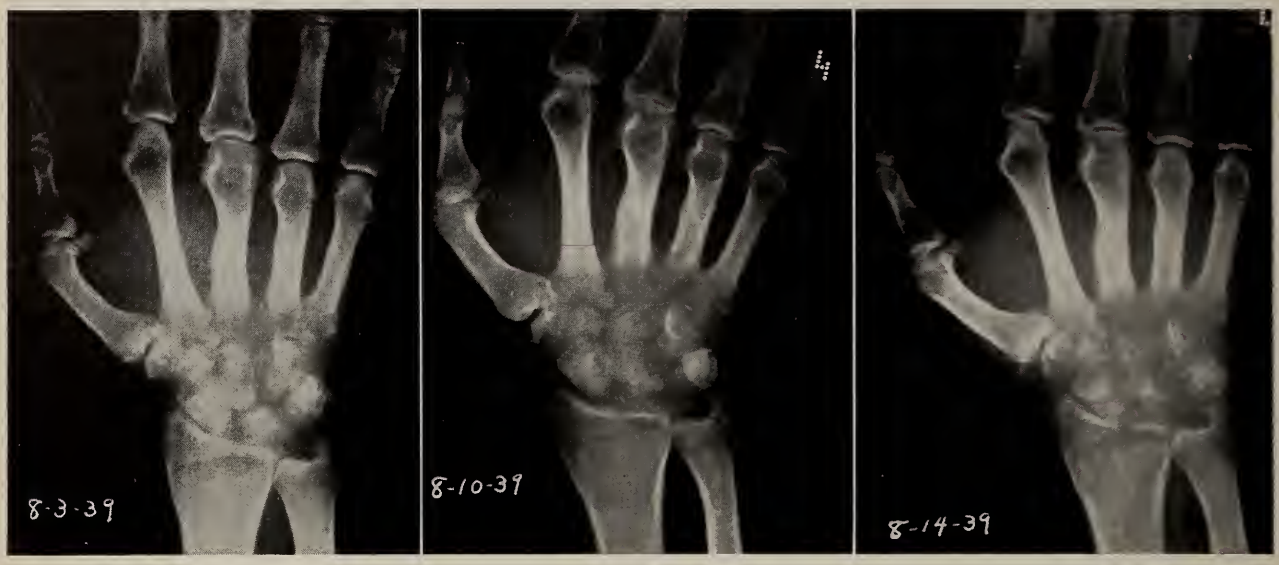


Fig. 1. Roentgenograms taken on the thirtieth, thirty-seventh, and forty-first days after onset of gonococcal arthritis, showing the rapid destruction of articular cartilage and severe local osteoporosis.

There is no doubt that if proper treatment were instituted sufficiently early, cure would have been effected before joint function was interfered with by cartilage destruction. The end-result in such cases depends on early diagnosis and treatment.

Sulfanilamide has been absolutely valueless in cases of rheumatoid arthritis in our experience and that of several other investigators. On this basis trial of therapy with sulfanilamide may be a satisfactory means of establishing etiologic diagnosis. It is recommended in questionable cases.

Fever Therapy.—If sulfanilamide cannot be tolerated in amounts needed, it is fortunate that there is another effective form of treatment, fever therapy. This may be induced in a hypertherm or by the intravenous injection of a foreign protein such as killed typhoid bacilli. The combination of fever and sulfanilamide therapy has been reported curative when either alone was not. When used together it seems less of each agent is needed.

Gouty Arthritis

Another form of acute joint inflammation for which there is a distinctly effective therapy—not beneficial to other types of arthritis is—gouty arthritis. Gout is by no means a disease of the past and it should not be a "forgotten malady." Gouty arthritis has made up 2 per cent of all cases seen thus far in the Rackham Arthritis Research Unit.

Etiology.—The cause of gout is not known. The disease is accompanied by a hyperuricemia in the majority of cases and it is thought to result from a disturbance of uric acid metabolism, but whether this results from abnormal enzyme activity, endocrine dysfunction, renal abnormality or nervous disease is not known.

History.—The clinical course of the disease, however, is quite characteristic and suggests the diagnosis, hence the history is extremely important. The disease is overwhelmingly a disease of males, less than 10 per cent of cases are females. The onset may be at most any age. Characteristically the disease begins suddenly with intense pain, swelling and other signs of inflammation at or about a joint. In only 50 per cent of cases is the bunion joint of the great toe involved. Pain is worse at night; the patient is usually incapacitated. The affected part oftentimes resembles cellulitis. Fever is sometimes high, leukocytosis and increased erythrocyte sedimentation rate may be present. Inflammation usually persists several days then suddenly disappears without residual. Local skin exfoliation may follow. Months or years may pass before another attack occurs in the same or another joint. With successive attacks the interval of freedom between usually lessens and the arthritis lasts longer, sometimes several months. As the disease becomes chronic permanent joint deformities may appear and the joints then may resemble deforming rheumatoid arthritis. "Fits of gout" are often precipitated by gluttonous eating, intemperate ingestion of alcohol, long walks, exposure to cold, acute infection or surgical operation. The blood uric acid may be within normal limits early in the disease—but always becomes elevated as the disease progresses.

Diagnosis.—As characteristic as the history is —and even with the aid of blood uric acid studies —the only *proof* of diagnosis is the occurrence of urate tophi which more commonly are found on the helix of the ear, about bursæ (olecranon bursitis is common) and in or about joints. When tophi appear about joints the roentgenograms show them as "punched-out" areas in the bone. Lesions resembling these gouty rarefactions in the x-ray film frequently are seen in other conditions, especially rheumatoid arthritis. This roentgen appearance is therefore typical of gout but *not pathognomonic.* Proof that a lesion is a gouty tophus requires demonstration of crystals of sodium urate or characteristic reaction to the murexide test. Tophi usually do not appear until several acute attacks of gouty arthritis have occurred. One should suspect gout on the basis of a characteristic history, with or without hyperuricemic acid, suggestive x-rays, or tophi, and therapy for acute gouty attacks should be instituted in all suspected cases.

Treatment of Gouty Arthritis

Of all medications colchicine (the active alkaloid of colchicum) gives much the best results. We give 1/120 grain of colchicine hourly during the daytime and hourly or every two hours during the night continuously until one of two results is noted: (1) Either dramatic relief of joint pain or (2) gastro-intestinal symptoms of toxicity, most commonly diarrhea, although nausea, cramps and vomiting may precede. The drug is then stopped and not used until another acute attack occurs. Paregoric should be given for diarrhea. The margin of safety between adequate dosage for maximum benefit and toxic results is so small that toxic symptoms usually occur until each patient learns his dose, which may vary from 14 to 25 tablets when given in the manner described. We always advise the patient to carry a supply of the medicine when he leaves on vacation or business trips when gouty attacks are so common.

In our experience no benefit has been derived from colchicine except in patients with gout and no patient with proven gout has failed to be greatly benefited by it. The manner of its action is not understood. It does not effect an excretion of uric acid or alter the metabolism of purine in any known way. The subsidence of the pain and disappearance of inflammation is rapid, usually complete with a few hours or days. Bed-rest, elevation of the affected part and heat are usually valuable. A few exam-

ples will emphasize the benefit to the patient of recognition of gouty arthritis and treatment with colchicine:



Fig. 2. Acute gouty arthritis of the proximal phalangeal joint of the left index finger. Note the complete disappearance of swelling in five days. Colchicine therapy was given during the first two days.

C. H., male, aged fifty-three, had been bed-ridden five months with arthritis of several metatarsophalangeal joints, one knee and a proximal phalangeal joint of a finger; pain was severe. When we first saw him he was being treated under the diagnosis of rheumatoid arthritis, and improvement had been slight. We learned that for twenty-three years attacks of arthritis typical of acute gout had been occurring after short intervals of freedom. Gout had never before been suspected. Serum uric acid was 6.5 mg. per cent, temperature 100 F. and erythrocyte sedimentation rate 1.5 mm. per minute. Figure 2 shows the remarkable improvement in the finger joint which occurred in three days with colchicine treatment. Six days later the patient was discharged, walking and feeling fine! He has had no subsequent attacks (fifteen months).

R. V., male aged forty, was referred to us because of severe acute arthritis in the left tarus of five days' duration and so painful he could not bear weight on it. This arthritis began twelve hours after the onset of acute tonsillitis which was then still active. The diagnosis suggested by the referring doctor was "infectious" arthritis. We learned that similar attacks of arthritis had occurred previously without evident infection. The appearance of the foot suggested cellulitis. It was our impression that he was suffering from acute gouty arthritis precipitated by the tonsillitis. Colchicine was administered, and on the second day tonsillitis still was present, but pain and inflammation had disappeared from the foot and the patient walked briskly into the Unit to tell us of the marked change. The photographs (Fig. 3) indicate the remarkable change. Serum uric acid was 7.6 mg. per cent.

No consistent relationship between gouty attacks and change in blood uric acid content or renal excretion of uric acid appears to exist. A low purine diet and the use of cincophen as in-



Fig. 3. Acute gouty arthritis of left tarsus. Note the complete disappearance of swelling and reappearance of normal structures, especially veins, which occurred during colchicine therapy—only four days interval between the picture on left and right.

terval therapy have not been of undisputed value. Further study of these measures is needed. Until more information is obtained we are using these measures in some patients. Great caution, of course, is necessary with the use of cincophen.

Time does not permit of enumeration of all forms of arthritis or a complete discussion of differential diagnosis and therapy. This discussion is aimed to emphasize the necessity for recognition of different forms of rheumatism, especially because of differences in treatment and prognosis and because of the immediate benefit of proper therapy in at least two distinctly different types of arthritis—i.e., gonococcal and gouty.

Today one should never feel satisfied with diagnosing "arthritis" unqualified, any more than he should diagnose lung disease or heart disease without attempting to determine immediately the etiology. Just as it is important to the patient to learn the type of pneumococci causing lobar pneumonia, it is important to learn the causative agent in all cases of arthritis so that proper therapy can be instituted without delay.

Summary

Joints are subject to different types of disease, caused by a variety of etiologic agents. Those treating arthritis should constantly be on the alert to recognize the various possibilities of etiology in each patient. The diagnosis "arthritis" unqualified should never be made; the type should be distinguished and the etiology determined if possible. The chief reason for this lies in the great value of special therapy in some types of arthritis and in the unfortunate consequences incident upon failure of recognition and early treatment of certain types. The diagnosis and treatment of acute gonococcal and gouty arthritis is discussed.

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CALIFORNIA PHYSICIANS' SERVICE

"We have at the present time practically 5,200 doctors serving as professional members in California Physicians' Service. We believe this represents from seventy-five to eighty per cent of the total number of physicians in active practice in the State. Doctors are continuing to join at the rate of from thirty to forty a month.

"Our schedule of unit payments has been as follows:

August and September (combined) $1.75 per unit.
October, November and December, $1.60 per unit.
January, $1.50 per unit.

"The bills for services rendered in February are in the process of audit now, and the unit value has not yet been computed. The decrease in unit value for January was caused by the large number of respiratory infections that had to be treated during that month. It is probably that there will be a slight, further reduction in the unit value for February and probably for March, for the same reason that applied in January. We anticipate that after that the value of the unit will again increase.

"While there have been a number of objections raised by doctors, either before they joined the plan or from men who have not yet seen fit to join, the rarity of complaints, in relation to either the value of the unit or the number of units paid for a particular service, surprises us."

Lesions of the Mouth*

By A. R. Woodburne, M.D.

Detroit, Michigan

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Insufficient attention has been paid to lesions of the buccal mucous membrane both by physicians and dentists; and I wish to review the more common lesions of the mouth, listing in outline form many of the conditions and discussing more completely some of the acute inflammatory conditions of the buccal mucous membrane, including the gingivæ, lips and tongue.

I. Common Benign Tumors

1. *Fibroma*—A firm encapsulated nodule commonly seen in the tongue or mucous membrane of the cheek.
2. *Myoma*—Rare, usually in the tongue.
3. *Myxoma*—Cheek.
4. *Lymphangioma*—Soft spongy, pale tumor usually in the cheek or tongue.
5. *Hemangioma*—Similar to above in appearance but bluish or purple in color. Commonly seen in the same areas.

II. Common Cysts

1. *Mucous*—Dome-shaped, translucent, bean-sized nodule of the lower lip, as a rule.

III. Electro-galvanic Lesions

1. *Acute and subacute inflammatory patches* with some greyish membrane and scarring on buccal mucous membrane in apposition with teeth. Teeth showing fillings of different electrolytic potential.

IV. Neurogenic Lesions

1. *Glossitis Areata Exfoliativa.*—Bright red denuded patches of the sides and dorsa of the tongue with some burning and tenderness.

V. Chronic Infections and Granulomas

1. *Moniliasis*
   a. *Black Tongue*—hyperkeratoses of the papillæ of the dorsa of the tongue with black pigment due to Penniciliun Nigre, as a rule.
   b. *Thrush*—White membrane surrounded by a slight inflammatory areola. Minute points or large patches. Membrane easily removed

*Presented at the annual meeting of the Michigan State Medical Society, Detroit, Michigan, September 21, 1938.

and when examined in sodium hydroxide preparation shows the nonsegmented monilial filaments.

2. *Tuberculosis*
   a. *Primary Complex*—an acute inflammatory nodule with lymphangitis usually of the tongue or lip.
   b. *Tuberculosis Orificialis*—A chronic dirty ulcer with undermined edges. Painful and associated with advance pulmonary tuberculosis.
   c. *Lupus Erythematosis*—Erythematous and edematous, atrophic and scarred areas of the lips associated with Lupus Erythematosis of the face.
3. *Syphilis*
   a. *Sclerosis,* primary—Painless firm nodule subacutely inflammatory with associated bubo. Most commonly seen on the lip, tonsil, or tongue.
   b. *Macular* and Papular lesions of the entire lining of the mouth in secondary Syphilis—associated with lesions of the skin and other mucous surfaces.
   c. *Nodular* and Nodulo-ulcerative chronic lesions of late syphilis. Seen on the tongue and lips, hard and soft palate—often with peculiar arciform arrangement.
4. *Lichen Planus*
   a. Peculiar bluish white spider web tracery of lips and buccal mucous membrane usually associated with typical skin lesions present on wrists, ankles, abdomen, et cetera.

VI. Degenerative Changes

1. *Keratosis of the Lips*—Dry brownish horny lesions.
2. *Leukoplakia*—White hyperkeratotic patches, lips, tongue and buccal mucous membrane.
3. *Carcinomata*—Keratosis and Leukoplakia not uncommonly become cancerous. Cancer of the mouth is characterized by the pearly appearance and hard feel, later with ulceration, crusting, and bleeding. These are usually quite actively malignant and must be destroyed early.

Stomatitis Venenata

Stomatitis venenata is much more common than is generally believed. Stomatitis venenata is characterized by an acute erythema with slight to severe edema and often some petechiæ are seen underlying the erythema. It often begins in the lower bucco-gingival sulcus and extends upward often involving the under surface of the tongue and lips, later the dorsa of the tongue, the mucous membrane of the cheeks and palate. The lower lip is usually quite extensively involved with little or none on the upper lip. Another very suggestive point is the extension of an erythemato-squamous or slightly vesicular streak down toward the chin from both corners of the mouth. The picture is not easily confused with other common acute lesions of the mouth which, as a rule remain more localized.

If one is not entirely sure of the diagnosis a therapeutic test is very simply carried out as follows:

1. Discontinue all present mouth washes, tooth pastes and in those with dentures, cleaning solutions.
2. Have patient use only slightly hypertonic salt solution to clean teeth and as a mouth wash.

The above routine will produce improvement in most cases in twenty-four to forty-eight hours. When the mucous membrane returns to normal the use of tooth paste may be resumed and if there is no return of irritation after three or four days, the other things may be added, one at a time until the offending agent makes itself evident.

We have found the various products containing hexylresorcinol to be the most frequent offenders, followed by those containing sodium perborate. Sodium chlorate, "Listerine," "pepsodent antiseptic" and other proprietaries have produced this irritation. The usual soapy and magnesia types of tooth paste have produced no irritation in our experience. The material used in making dental plates sometimes produces a severe stomatitis. In one patient, several materials were tried and finally it was necessary to use a silver plate to prevent recurrence. Rarely certain foods produce this picture. I have seen two, one due to English walnuts and another due to orange peel.

Vincent's Disease

Vincent's gingivitis and stomatitis is one of the common lesions of the mouth and is characterized by an acute dusky erythema usually beginning along the gingival margin. There is usually rather marked edema and early surface ulceration with a dirty greyish brown membrane. The infection may spread from the gums to other areas or may be a secondary invader in any area of devitalized mucous membrane. When at all extensive the infection gives the breath a very fetid odor.

Diagnosis.—The diagnosis may be established in suspected cases by direct examination of membrane or smears taken from beneath it. The sym-

biosis of the fusiform bacillus and Vincent's spirilla is constant. The organisms are very profuse in smears and are easily seen in a simple methylene blue stain with the high dry or oil immersion lense. Cultures are not helpful since these organisms do not grow on ordinary culture media.

In examining smears and cultures from the mouth one should have some knowledge of the normal flora since many organisms are found here normally. The streptothrix is seen in all direct smears from the mouth. It does not, as a rule, grow on ordinary culture media, but since it is seen in all direct smears, must be recognized. It is generally considered non-pathogenic. **The two Vincent's organisms, the fusiform bacillus and the large coarse spirilla, are constantly present and a few may be seen in any smear from the mouth. In Vincent's disease they are found in great numbers, also as secondary invaders in carcinomatous, traumatic ulcers, et cetera.** Some authorities go so far as to say that Vincent's organisms are always secondary invaders. This is strongly supported by the almost universal experience that Vincent's disease will recur immediately when treatment is stopped unless proper dental prophylaxis is carried out as part of the treatment. Among the cocci seen in the mouth the Streptococcus viridans is nearly always present as is the non-hemolytic streptococcus and occasionally hemolytic streptococci are seen. Because all these organisms are normal inhabitants of the mouth the laboratory findings must be very critically examined.

Our practise is to make a direct smear and a culture. When the direct smear shows a large preponderance of the Vincent's organisms in a lesion clinically compatible we feel reasonably sure of our opinion. However, when these organisms are found in ulcers due to malignancy, trauma, et cetera, the treatment must be directed to the underlying lesion. When the smear shows rare Vincent's organisms it practically rules out Vincent's infection as the diagnosis. A large preponderance of cocci indicates that a culture should be made. The culture will identify the coccus group and separate them into their proper classifications. The green producing Streptococcus is the most frequent organism found.

Treatment.—We feel that proper dental prophylaxis is a necessary step in treatment of Vincent's disease. Topical remedies of value are, freshly prepared neo-arsphenamine in water or glycerine, chromic acid, potassium permanganate, hydrogen peroxide and sodium perborate.

Streptococcic Infections

Streptococcic gingivitis and stomatitis is almost universally confused with Vincent's infection. Clinically, this infection shows three main types.

Hypertrophic.—First the hypertrophic type[3] which is characterized by acute, tender, red, edematous gums. The gums swell away from the tooth. there is no ulceration or erosion. The saliva is sticky and there is a marked increase in the secretion of mucous glands. The patients experience much difficulty in mastication. There is usually a temperature of about 100 degrees with malaise. It is much more common in children or debilitated adults and may be transferred by kissing or the use of a common cup, since we have on many occasions seen several cases in the same famliy. Microscopically the sections show a marked intra and intercellular edema. The sections show many polymorphonuclears, some increase in lymphocytes, plasma cells and a few fibroblasts.

"Vincent" Type.—**The second type is clinically very similar to Vincent's infection except that the membrane is more yellowish, the breath is not so fetid and the erosions or ulcers are much more superficial. In some cases, the pain and soreness may be more marked than in Vincent's disease. Systemic symptoms are more marked than in Vincent's disease with temperature higher and more malaise. The direct smears show almost exclusively cocci and the culture is usually Streptococci of the viridans or nonhemolytic type.**

"Impetigo" type.—A third type develops from the second type by peripheral extension in arciform patches with vesiculation followed by immediate rupture and superficial yellow membrane formation. This type I have seen associated on several occasions with an ordinary impetigo contagiosa of the face. On one occasion, we observed a lesion extend from the chin over the mucous surface of the lower lip and extend in the mouth in an identical way with the impetigo of the cutaneous surface. These cases show the same appearance on histologic examination as the hy-

pertrophic type except for a subepidermal dense zone of polymorphonuclear cells, the surface membrane and much less edema.

Treatment.—As regards treatment, these cases do not respond to the usual agents employed in Vincent's disease, in fact, the harsh actions of these drugs seem to predispose to spread of the streptococcic infection. We find that these cases respond best to frequent rinsing with slightly hypertonic saline solution and painting of all areas three times a day with a mild mercurial antiseptic such as 1/500 aqueous metaphen.

Aphthous Stomatitis

Aphthous stomatitis, another acute inflammatory disease of the mouth, is characterized by the sudden onset of a single or group of vesicles which break at once leaving a bright red tender denuded area from the size of a pin head to that of a dime. These lesions may, after a few days, develop a membrane which is usually not heavy. They usually remain scattered without predilection for the gums which aids in the differentiation from Vincent's disease. There is usually no peripheral spread as in the ulcerative streptococcus infection. The early lesion, however, is quite characteristic. These usually occur on the mucous membrane of the lips, cheeks or sides of the tongue. They are very painful from the first and when numerous, prevent the patient from eating. They subside in six to ten days without treatment. However, in severe cases, one attack may follow another in rapid succession sometimes overlapping to such an extent as to produce serious debility.

In most texts the condition has been divided into several subdivisions, but it seems that in view of recent work they are all etiologically the same. The difference noted being different stages of development.

Recent work[1] strongly points to the conclusion that these are herpes simplex involving the mucous membrane of the mouth. Points of similarity are, onset with vesiculation, burning pain from the beginning, tendency to recurrence, irritation frequently precipitates an attack, and within recent months it has been shown that these lesions are produced by a virus which when innoculated into the scarified conjunctiva of the rabbit produces the same reaction locally and in the brain as the herpes virus.

Treatment.—We have had the opportunity of following up this work from the therapeutic side. We had two very severe relapsing cases under our care when the article[1] dealing with the herpes virus came to our attention, and we felt that it would be well worth while trying the repeated vaccination technic which has been very helpful in handling cases of recurrent herpes simplex as advocated by Foster and Abshier.[2] We followed this out in these cases with very satisfactory results. Both cases had slight recurrences after a month or so but two more vaccinations have given permanent results to date.

Conclusions

We bring these thoughts to your attention in an effort to stimulate more careful examination of lesions in the mouth and in an effort to make some contribution to clarification of the uncritical and almost universal habit of calling all acute inflammatory lesions of the mouth Vincent's disease.

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ERRORS IN DIAGNOSIS

H. S. Applebaum, M.D. discusses "Errors in Diagnosis" under the following outline:

(1) Incomplete Examination:
- (a) Because the diagnosis seems obvious
- (b) Because a certain diagnosis seems likely
- (c) Because the patient is old, infirmities are taken for granted
- (d) Becaue of fear of offending the sensibilities of the patient

(2) Unfamiliarity with the Disease in Question
(3) Failure to Consider all the Possibilities
(4) Incomplete History
(5) Improper Evaluation of Symptoms
(6) Pain of Uncertain Origin
(7) Lack of Knowledge
(8) Classification of Obscure Conditions as Neurosis

Summary and Conclusion:

(1) Don't take anything for granted; (2) Take a careful history; (3) Make a complete physical examination; (4) Consider all possibilities; (5) Think of the commoner conditions first but don't overlook the rarer ones; (6) Weigh all evidence carefully; (7) Do laboratory work freely, but do not depend solely on the laboratory for a diagnosis; (8) The clinical picture is still the most important factor in formulating a diagnosis; (9) Seek greater knowledge and wider experience; (10) Think of the patient first, last and all the time.—*(The Ohio State Medical Journal, Feb. 1940).*

Biliary Tract Disease

Surgical Management

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■ The persistence of symptoms in patients who have undergone operations on the biliary tract has always been a very troublesome factor in surgery of this type. Although many theories have been advanced to account for the recurrence or persistence of these conditions, we have felt that there were three underlying causes. They are, leaving a stone in the common or cystic duct at the time of the operation, inadequate drainage of the biliary system, and last but not least, improper pre-operative diagnosis of the condition.

Findings at Operation

In reviewing seventy-eight cases of biliary tract disease, (infection and stones) that have been operated by us during the years 1936-1939, fifteen or 19 per cent have had demonstrable stones removed from the common duct. In all cases the ducts were manually palpated for stones, notwithstanding the fact that stones were not demonstrable in the gall bladder.

In opening the ducts we have adhered to the following criteria with the indicated incidence:

Palpation of a stone in the common duct	11
Dilatation or thickening of the common duct	12
Thickening of the head of the pancreas	9
Adhesions or inflammatory reaction along the common duct	3
Enlargement or mottling of the liver	16

There were two strictures of the common duct encountered, both of which had had previous cholecystotomy.

Symptoms

The symptoms of biliary tract disease are, at times, not as clearly defined as one would desire to have them. The pain associated with this condition is usually found to be in the epigastrium. It may, however, be directly over the area of the gall bladder. When the pain is situated in the epigastrium, the radiation may be to the left, or to the left scapular region. **Care should be taken in differentiating biliary tract disease from a gastric disorder. The past history of the condition is quite beneficial in differentiating the two conditions. The symptom complex generally referred to as dyspepsia is usually found to be present. In the acute phase, nausea and vomiting are the chief complaints.** The following symptoms were noted in our series of cases:

Pain in the epigastrium	42
Pain in the upper right quadrant	38
Nausea and vomiting	28
Dyspepsia	23

It is very interesting to note that in the total number of cases operated upon for stones, only twelve or 15 per cent gave a previous history of jaundice.

X-ray Diagnosis

The use of the x-ray, in making the diagnosis of biliary tract disease, should not be neglected, for in many cases the stones can be directly visualized or indirect evidence produced which may point toward a definite biliary system. The cases subjected to this procedure, however, should be carefully selected and adequately prepared. **A patient having an acute attack or showing evidence of jaundice should not be given gall-bladder dye, for grave damage to the liver may result, and false information be obtained because of the inflammation in the biliary tract at this time.** The preparation of the patient for an x-ray study of the biliary tract should be left in the hands of the x-ray department.

Age

The youngest patient operated upon for biliary tract disease was a twenty-two-year-old girl; the oldest having been a seventy-five-year-old woman. The majority of the cases were between thirty and fifty years of age. The age incidence of patients suffering from this disease was found to be:

20-29 years	7
30-39 years	30
40-49 years	22
50-59 years	13
60	6
	78

Negroes

We have always been reluctant to make the diagnosis of biliary tract disease in patients of the negro race. This was borne out in our series of cases as we did not encounter a single member of this group, although we performed other abdominal operations on several negro patients during the period of 1936-1939. The only explanation that we can offer would be the continuous diet of fried food they enjoy. There is no positive evidence to prove this theory, however.

Parity

Another large group that was little affected by this condition was the nulliparæ. In our series there were only eight of this group. The parity of the cases is shown in the following table:

Children	
0	8
1	5
2	13
3	12
4	8
5	9
6	1
7 or more	9

There are many reasons that would account for this disease having a higher incidence in women who have had children. The chief reasons, we feel, are the extra load enforced upon the woman's constitution during pregnancy and the pressure of the fundus on the biliary system with a resulting mechanical obstruction to the bile flow.

Biliary tract disease has long been thought to be more prevalent in females than in males. In our series we were surprised to find that we had performed thirteen operations or 17 per cent on male patients for biliary tract disease.

Early Operation

We have felt for some time that immediate surgery is indicated whenever the patient's symptoms point toward a defective biliary system. The reason for surgery without delay is the damage to the liver by obstruction and infection in the biliary system. If this damage persists over a considerable length of time, it lowers the threshold of liver function. As a result, when the liver is forced to undergo a little more activity, as at the time of operation or serious illness, it has little resistance to withstand the extra burden forced upon it and a liver crisis takes place. All abdominal surgeons have seen the occurrence of the liver crisis shortly after an operation. The crisis is characterized by the cessation of bile flow, high fever, stupor, and in many cases death shortly after the onset of the condition. In our series, we experienced five such cases, all terminating in death, and all showing the identical symptoms already mentioned.

Pre-operative and Post-operative Measures

To combat the advent of liver crisis, we employ two very important pre- and post-operative measures. The giving of large quantities of intravenous glucose which tends to build up and maintain the liver glycogen and of late we have been employing a second very important procedure, that is, the giving of vitamin K and bile salts to those patients with jaundice. **We have discontinued the use of calcium both pre- and post-operatively because we feel that vitamin K therapy is much more beneficial in view of the recent experience. The bile salts not only work synergistically with vitamin K but also stimulate the flow of bile.** It was very interesting to note that when the bile drainage diminished in amount or became more liquid in character, the patient's condition invariably became worse.

Type of Operation

We feel that the type of operation employed should fit the condition found after the abdomen has been opened and the biliary tract examined. In all cases, when the common duct was drained, we removed the gall bladder. The following table is submitted to show the different types of operations performed in the series:

Cholecystectomy and drainage of the common duct	38
Cholecystectomy	5
Cholecystostomy	34
Cholecystogastrostomy	1
	78

Surgical Mortality

The total surgical mortality in the series was seven cases or 8.9 per cent. The causes of death, we believe, were as follows:

Liver crisis	5
Pneumonia	1
Post-operative evisceration with resulting shock	1

(This patient developed bronchial asthma one day post-operative and we feel that the resulting coughing was the cause of the evisceration.)

Surgical Procedure

When the patient's condition warrants exploration of the common duct, we make a longitudinal incision in the duct and probe it with a flexible probe. Good exposure is essential in this procedure. The liver has to be guarded and not unnecessarily traumatized. Long continual drainage is essential in getting the patient's biliary system back to normal. To accomplish this end, we employ the T-tube type of drainage in the common duct. The T-tube is inserted into the longitudinal incision made in the common duct and sutured therein with fine chromic catgut. As the tube passes through the abdominal wall it should be attached to the skin with a silkworm suture to prevent the patient pulling it out while rolling in bed. No pain is experienced by the patient when this occurs. After the

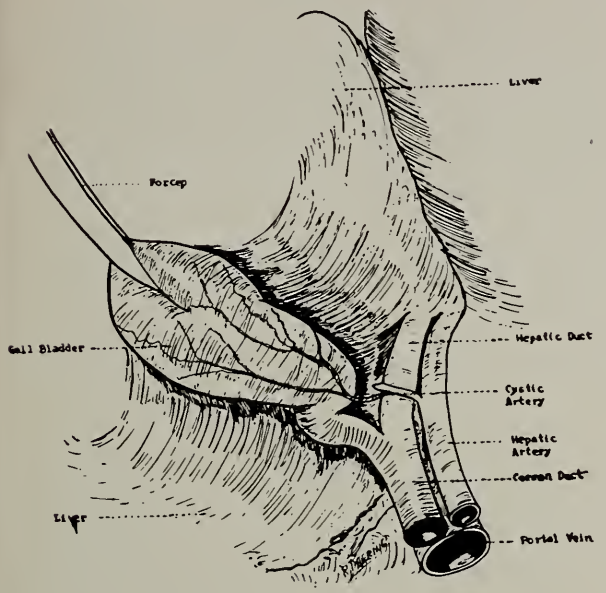


Plate 1.

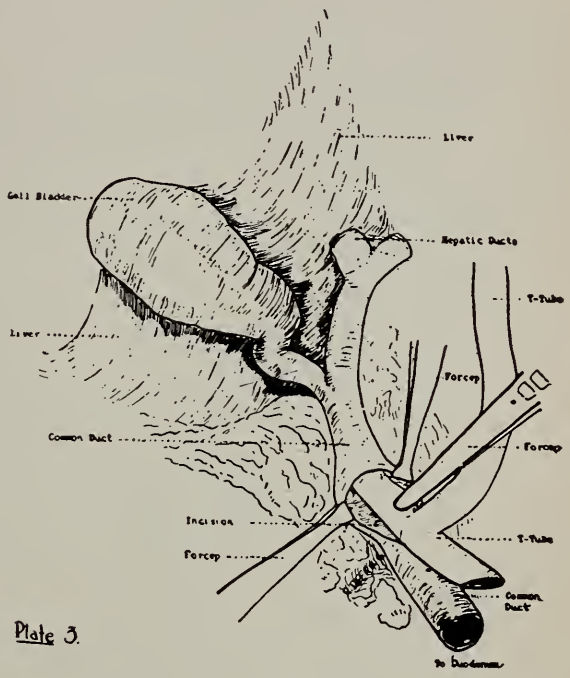


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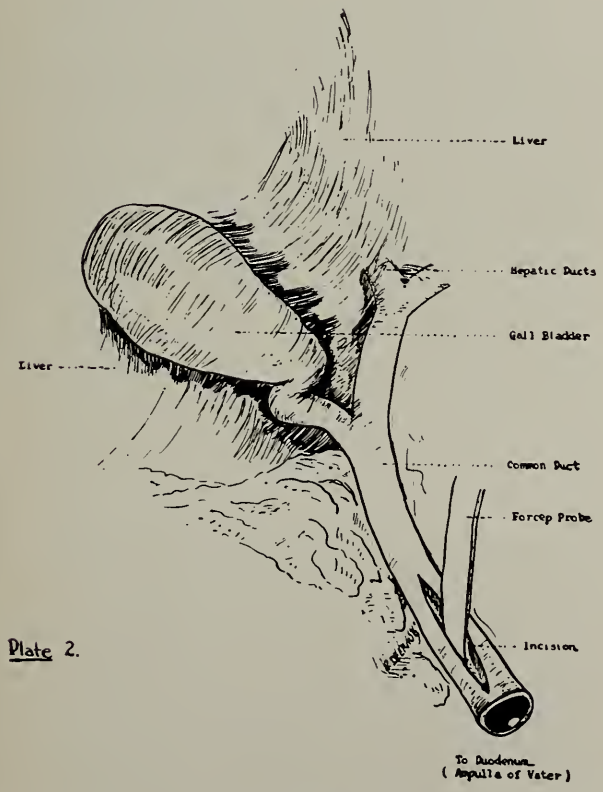


Plate 2.

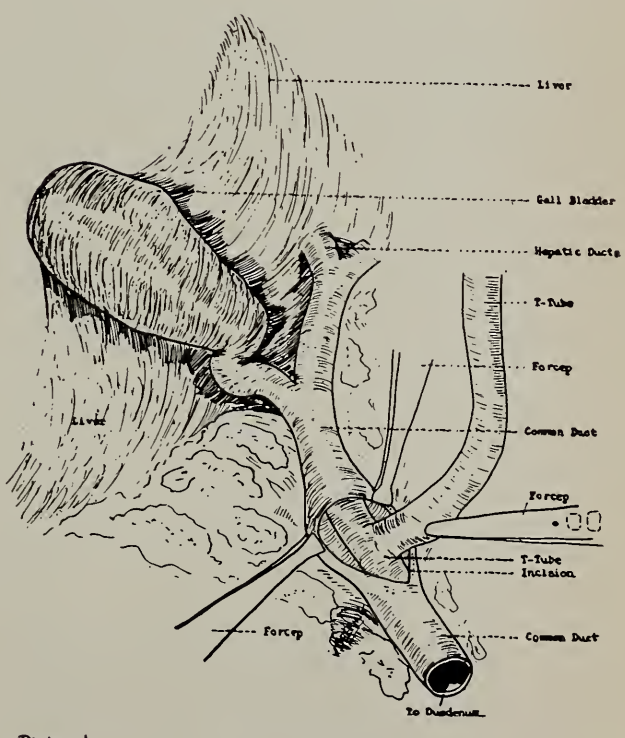


Plate 4.

drainage tube has been inserted and sutured into the duct, we removed the gall bladder. The reason for doing this procedure last is that by applying a hemostat to this organ, it acts as a retractor and gives better exposure to the ducts. In removing the gall bladder, we

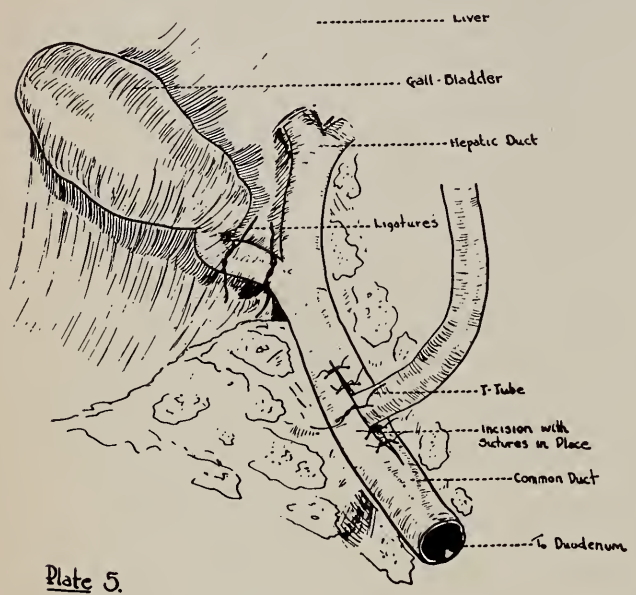


Plate 5.

feel that the focus of infection in the biliary system is removed. We also place a second rubber drainage tube down to the posterior inferior surface of the liver for it is here that bile may accumulate post-operatively after the opening of the biliary system.

After a normal ten to fourteen day convalescence, the patient is allowed to get up and move about. The drainage tube is allowed to drain into a baby hot water bottle which is suspended from the patient's neck. No discomfort is felt by the patient and he or she may resume normal activities. We have found that after three or four months, the patient is symptom-free. If this be the case, the tube is shut off and the patient's condition noted after a period of about two weeks. If any distress is experienced during this time, the tube should be re-opened and drainage allowed to continue. However, if the patient has been symptom-free during this period, the ducts are injected with potassium iodide or sodium bromide solution through the T-tube and a radiograph taken. If the bile ducts are still dilated, drainage is allowed to continue, but if they have returned to normal and the patient is having no distress, the drainage tube is removed by gentle traction without anesthesia.

The success of any operative procedure should be dependent upon the condition of the patient, in regard to persistence of symptoms, following the operation. Many of the cases in this series were operated upon as long as three years ago, while some were of last year. None, however, were less than five months post-operative. We must apologize in a few cases for not knowing the patient's present condition, for most of the cases were referred to us while some of them were clinic patients whose whereabouts are not known at present.

Results

In following up the patients in this series both directly and through their own private doctor, the following questions were asked: "Since the operation, has your old condition been completely relieved? partially relieved? or not relieved at all?"

The answers to these questions were as follows:

1. Cholecystectomy and T-tube drainage of common duct..... 36 cases
   - A. Complete relief..... 27
   - B. Partial relief..... 0
   - C. No relief..... 0
   - D. Patients not heard from..... 4
   - E. Surgical mortality..... 5
2. Cholecystostomy ..... 36 cases
   - A. Complete relief..... 18
   - B. Partial relief..... 2
   - C. No relief..... 4
   - D. Patients not heard from..... 10
   - E. Surgical mortality..... 2
3. Cholecystectomy ..... 5 cases
   - A. Complete relief..... 5
   - B. Partial relief..... 0
   - C. No relief..... 0
   - D. Patients not heard from..... 0
   - E. Surgical mortality..... 0
4. Cholecystogastrostomy.....1 case. Died four days post-operative. Diagnosis of carcinoma of head of pancreas.

In the group that had a cholecystectomy and T-tube drainage of the common duct it will be noted that none of the patients had poor results following the operation. The mortality was the highest in this group, however; despite all pre- and post-operative measures which we employed. In the second large group of cases, that is, those that had a cholecystostomy, the results were not so gratifying. Of the four cases that obtained no relief, one was operated upon a year later and a stone removed from the common duct. Whether it was present at the time of the first operation or not, is an unanswerable question. Since the second operation, however, the patient has been in good health. The second case of this group developed a stricture of the common duct following the operation, for which she was later operated upon and has been feeling well since. The two other cases necessitated a cholecystectomy when a simple drainage failed the first time. We attribute the

present condition of those two cases who received only partial relief to the fact that their biliary system had suffered damage which surgical or medical measures could not remedy. Faulty living habits also play an important part in this group.

Conclusions

We would again like to stress six important factors in obtaining beneficial results in this type of surgery.

1. Properly diagnosing the condition.
2. Adequate pre-operative and post-operative treatment.
3. Having the operation fit the condition found after the biliary system has been examined.
4. Long continuous drainage of the common duct when it is indicated.
5. Readjusting the patient's living conditions following the operation.
6. Early operation when correct diagnosis has been made.

IT IS INCREDIBLE THAT ANY PHYSICIAN CAN DIAGNOSE AND PRESCRIBE AT THE RATE OF FOUR OR FIVE A MINUTE

The *Westchester Medical Bulletin,* under the heading "SPEED AND EFFICIENCY Noted Under State Medical Plan," says:

A taste of what medical care may become under governmental auspices is found in a dispatch by the International News Service under an Albany date line on January 20th. This item, published in the *Journal American,* relates to an inspection report, sharply criticizing the existence of a "pill clinic" at the Rikers Island Penitentiary, issued by the State Commission of Correction.

According to the inspection report an inspector for the Commission found that inmates reporting to sick-call clinics on the day of inspection, October 20, 1930, were handled at the rate of four or five a minute.

"Prisoners form two columns," the report said, "and as they pass a table they are given a prescription blank which they take to a physician who sits at a table near the entrance to the examination room of the clinic.

"As the prisoners pass in, they tell him what their ailment appears to be and he, without any examination whatever, writes a prescription, scribbling it so quickly that the nurse who hands out the pills from a tray which he has on a table in front of him could not in a number of instances read the prescription.

"In a few instances, where the inmate's complaints seem to warrant further examination, the doctor directed an examination which was conducted by another physician in the examination room. After the close of the clinic it was found by a count of the prescriptions handed out that one hundred twenty men had passed through within an hour." The inspector added a cryptic comment to the effect that "it appears that such treatment can be of little if any value, as it seems incredible that any physician can diagnose and prescribe at that rate."

Clinical Medicine Conference

Department of Internal Medicine

University Hospital, Ann Arbor

Service of Cyrus C. Sturgis, M.D.

J. H., No. 425925, aged forty-seven, white, male, married, a ticket agent, was admitted November 11, 1939.

History.—The patient first entered the University Hospital in June, 1938, with a history of weight loss, polyuria and polydipsia. On deep inspiration the liver edge was palpated 2 cms. below the right costal margin in the mid-clavicular line. Slight peripheral edema was noted. Glycosuria was present, and the patient was placed on a measured diet with insulin. He was never well regulated and frequently had mild reactions and "weak spells."

Three days before the present admission he suddenly lost his appetite and felt fatigued. That evening he awoke feeling faint and as though his heart had stopped. These symptoms persisted but the attacks were transitory.

He had had migratory polyarthritis at the age of twenty-two but no cardiac symptoms. All of his family have rather dark skin. He had never used silver medications or had prolonged contact with other heavy metals. He drinks very little alcohol. The remainder of the past history and family history were noncontributory.

Physical examination.—Temperature, pulse and respiration normal. Blood pressure 105/65. The patient was a well developed, asthenic gray haired white male appearing chronically ill. The skin over the hands and face was a peculiar grayish-brown color but there was no pigmentation of the buccal mucous membranes. The neck veins were pulsating. There was slight dullness, and diminished breath sounds and tactile fremitus at the right base posteriorly. The heart was borderline in size. There was a slurring of the second sound in the fourth intercostal space to the left of the sternum, and numerous extrasystoles. The liver was markedly enlarged and extended to just above the right iliac crest in the midclavicular line. The surface felt hard and smooth. The spleen was not palpable. There was slight pitting ankle edema.

Laboratory Data.—Urinalysis showed 3+ sugar, 4 to 5 red blood cells per high power field and 4 to 5 white blood cells; an occasional granular cast per low power field. Blood examination: Hemoglobin 88 per cent; red blood cells 4,300,000, white blood cells 14,500 per cubic millimeter. Differential: polymorphonuclear

neutrophils 61 per cent; lymphocytes 29 per cent; monocytes 6 per cent! eosinophils 3 per cent; basophils 1 per cent. Mean corpuscular volume 108 cubic microns. There was slight basophilic granulation. Stool examination was negative except for a 1+ guaiac reaction. There was 50 per cent retention of bromsulphalein after 30 minutes. Blood bilirubin was 0.2 mgms. per cent. Glucose tolerance test was as follows:

Fasting—200 mgms. per cent
1st hour—354
2nd hour—521
3rd hour—498
4th hour—400
5th hour—374

Total serum proteins were 7.5 per cent with an albumin-globulin ration of 0.8. Orthodiagram showed generalized cardiac enlargement and slight fluid accumulation at the right lung base. Sound records of the heart revealed a questionable presystolic sound but no definite evidence of valvular disease. The venous pressure in the arm was 165-195 millimeters of water. Skin biopsy showed hemosiderin in phagocytes about the sweat glands and definite encrustation of corium fibers with iron.

Course in the Hospital.—The glycosuria was fairly well controlled on 20 units of regular U 40 insulin, three times daily, and a 2200 calorie diet with 200 grams of carbohydrate. The patient lost six pounds in weight during the first few days and no edema has been demonstrated since. He continued to complain of weakness and a feeling of fullness in his abdomen.

Discussion

Dr. Cyrus C. Sturgis: Have you noticed any change in your color?

Patient: I have noticed no change in color since 1925. Prior to that time my color was somewhat lighter. During the summer of 1925 my skin was very dark brown.

Dt. Sturgis: Have you a brother who has the same complexion?

Patient: Yes, he has always tanned well in the summer, and has always had a dark complexion, generally.

Dr. Sturgis: Dr. Thal, how do you explain the weak spells?

Dr. William S. Thal: They might be due to spontaneous hypoglycemia.

Dr. Sturgis: What is your diagnosis and on what basis do you make it?

Dr. Thal: Hemochromatosis, which is verified by skin biopsy. He has all the classical features, the pigmentation being definitely noticeable. He has had some impotency since the onset of the symptoms and this is found to occur frequently in this disease.

Dr. Sturgis: Dr. Bethell, would you like to discuss this case?

Dr. Frank H. Bethell: I am not going to attempt to discuss the clinical aspects or pathology but will take up only the question of what is known regarding the iron metabolism in hemochromatosis.

The total iron content of the normal male of 70 kilos is about 3.5 grams, which is divided into two parts: the fixed tissue portion and the part in the circulating blood. The tissue iron may be subdivided into three parts. The first, or so-called functional, iron is contained in the nuclei of the cells and plays a vital part in their metabolism. The second portion consists of intermediate products resulting from the breakdown of hemoglobin. The third part is storage iron which serves as a reserve source of hemoglobin formation. This is a very variable type of iron. It is increased in pernicious anemia and in hemolytic anemias, but decreased in iron deficiency anemia. The blood contains about 2.5 gm. iron or 45 mg. per 100 c.c. of which all but 0.1 mg. is present in the hemoglobin molecule. The 0.1 mg. is in plasma and is considered by Moore to be iron in transit. If we consider the figure of about 3 per cent for the daily removal of red blood cells from the circulating blood correct, then there is a total of 75 mg. of iron a day removed from the blood. Unless nearly all of this is conserved and used again, anemia will develop, since the daily dietary intake of iron is only about 15 mg., of which probably not more than one-half can be absorbed. In hemochromatosis, where the fixed tissues contain from 30 to 50 grams of iron instead of the normal 1.0 gm., there is no increase in the blood iron. There is no evidence of increased blood destruction. Moreover, in hemolytic conditions the excretion of iron is increased, whereas in hemochromatosis such evidence as is available points to a decreased excretion.

The important missing link in our understanding of the pathogenesis of hemochromatosis lies in our ignorance of the normal intermediary metabolism of iron. It is known that after the breakdown of hemoglobin to an iron containing fraction, a pigment compound, and a protein, that the iron portion goes through a series of intermediary compounds, some of which, such as ferratin, have been identified. The evidence indicates that their formation occurs in cells widely distributed throughout the body and by no means is restricted to the reticulo-endothelium system.

The specific defect in hemochromatosis would seem to lie in the inability of tissue cells to complete the process of iron breakdown, and release the metal for subsequent use. A complete inability to conserve hemoglobin breakdown iron would remove about 75 mg. of iron a day, an amount that would soon lead to anemia. Consequently, the defect must be a partial and limited one. Yet if only 1/20th of this amount, or 3.75 mg. of iron daily, were locked up in the tissue cells, the reported total iron contents of patients with hemochromatosis could be attained in from twenty to forty years, and there need be no anemia, at least in the case of males in whom hemochromatosis occurs almost exclusively.

Subsequent investigations on this disease seem to suggest the necessity of finding early cases. Its definite familial incidence should aid in the discovery of such cases. Estimations of whole blood and plasma iron, blood volume and quantitative determination of pigment excretion in urine and stools, as well as iron exchange studies, should be included in such a project. Even if this is done, we should probably be no nearer an understanding of the fundamental metabolic defect in this disease.

Dr. Sturgis: This man noted a change in his color fourteen years ago. According to your argument, he must have been acquiring this disease for thirty to forty years. Dr. Conn, would you like to discuss this condition?

Dr. Jerome Conn: If this disease represents an inborn error of iron metabolism, it takes a very long time to accumulate enough iron in the tissues to cause organic dysfunction, since clinical hemochromatosis is a disease limited almost entirely to middle aged people. The incidence, furthermore, is about 20 to 1 in favor of males.

What are the metabolic results of this abnormal retention of iron? Pathologically, one finds heavy infiltrations of hemosiderin-laden phagocytic cells in most of the glandular tissues of the body. The liver and pancreas usually suffer the most. But marked infiltration of the thyroid, adrenal cortex and salivary glands have been reported.

With regard to the disturbed carbohydrate metabolism in these cases, it must be borne in mind that one

is dealing with a true pancreatic type of diabetes. One must not make the mistake of attempting to explain the entire abnormality of carbohydrate metabolism on the basis of hepatic dysfunction. It is true that severe liver disease associated with normal pancreatic function frequently results in high plateau type of glucose tolerance curve and glycosuria, but the fasting blood sugar levels are always normal or subnormal. Here the fasting blood sugar level is abnormally high and indicates pancreatic disease even though the liver is also probably deficient in its carbohydrate functions. This tendency in severe liver disease of the fasting blood sugar to be abnormally low may, to a certain extent, mask the severity of a true pancreatic diabetes when the two lesions are associated. Thus, a number of cases of severe diabetes mellitus have been reported to have become much "milder" with the progression of a cirrhosis of the liver.

It is conceivable that the periods of extreme weakness and exhaustion in this patient are related to adrenal cortical insufficiency. Not only has the cortex of the adrenal gland been found to be intensely infiltrated in some cases but some have shown abnormal amounts of melanin in the skin in addition to hemosiderin. It might be of interest and perhaps of therapeutic importance to do a diagnostic Cutler-Wilder sodium restriction test on this patient.

Dr. Sturgis: Dr. Avery, how does Dr. F. B. Mallory of Boston feel?

Dr. Noyes L. Avery: Dr. Mallory and Dr. Parker feel that copper, at least, is very prominent in the etiology of hemochromatosis. Their early case reports showed rather convincing evidence of copper poisoning through long exposure to the metal. The characteristic pathologic picture can be produced in rabbits and other animals by administration of small amounts of copper over a long period of time. More recently Parker has found an absolute increase in the copper content of these livers by special staining and micro incineration methods.

The characteristic change in active hemochromatosis is the presence of hemofuscin in the parenchymal cells, together with hemosiderin deposits in the periphery of the lobules and portal spaces. Actual cirrhosis is caused by degeneration presumably caused or followed by the hemofuscin deposits. A number of livers show what might be considered healed hemochromatosis as evidenced by the absence of hemofuscin in the hepatic cells. The hemosiderin deposits in the lobules and portal spaces with a moderate amount of cirrhosis, however, are present. If it is true that hemofuscin indicates activity of the disease, the so-called inactive cases would seem to speak against a congenital abnormality of iron adsorption.

Dr. Raphael Isaacs: It is interesting that copper is being used now by some people to cause an increased absorption of iron. It may be that in chronic copper poisoning there is a disturbance in the retention of iron. This blood is interesting inasmuch as the red blood cells are very large; 57 per cent larger than 7.5 microns. The unusual feature is the marked number of vacuoles in the neutrophils and monocytes in the blood stream. There are also large cells with phogocytized material in the cytoplasm. Some of the material looks like debris of corpuscles; others look like clear vacuoles, presumably fat. The blood has some features of subacute bacterial endocarditis except that the polymorphonuclears do not show basophilia of their granules.

Dr. Marvin H. Pollard: Several years ago we had a man on the medical wards who had typical diabetes mellitus and hemochromatosis. He had obtained his diagnosis from a twin sister who had diabetes. She inquired of him as to how he was feeling and he told her of his symptoms. She took a sample of his urine and found he had diabetes. In going back into their symptoms, they both had developed diabetes at the same time. He, in addition, had developed hemochromatosis. He died shortly after he left the hospital, but she was still in good health without evidence of hemochromatosis.

Dr. T. Haynes Harvill: I should like to ask about the resistance to insulin.

Dr. Conn: I do not think I can answer that question satisfactorily. I think that the patients who are most resistant to insulin are those who are unable to deposit much glycogen in their livers. It may be a question of the degree of the liver damage. Some patients show marked hypersensitivity to insulin.

Dr. Sturgis: Apparently these patients get along very well until they develop diabetes.

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SOURCES OF VITAMINS, MINERALS, CARBOHYDRATES

The health-giving properties of citrus fruits are traditional, and scientific studies attribute these qualities to their richness in mineral elements and vitamin values. For example, citrus fruits are outstanding sources of Vitamin C, good sources of Vitamins B and G, and may contain appreciable amounts of other vitamins. They also contain fair amounts of calcium, phosphorus and iron, traces of copper, magnesium and manganese, and 10 to 12 per cent of easily assimilable carbohydrates in the form of dextrose, levulose and sucrose. Their natural and attractive tartness is due to citric acid (partly free and partly as natural citrates), which is burnt in the body to yield energy, leaving the base-forming elements as an alkaline ash to balance the acidity of acid-forming foods.—J. S. McLester, "Nutrition and Diet in Health and Disease," in *Citrus Fruits and Health* by Florida Citrus Commission.

President's Page

RICHARD ROOT SMITH, 1869-1940

An Appreciation

THE profession of Michigan has reason to be proud of and grateful to Dick Smith—proud that one who was so distinctively a Michigan product should have attained such eminence in his chosen field. He was born in Grand Rapids. He graduated from the University of Michigan's Medical School. His years of intense professional activity were spent in Grand Rapids, and there he died on May 7th.

The profession is grateful for his continuing effort to improve the standards of surgical practice, for his interest in the scientific progress of all branches of medicine, and for those ideals of professional integrity which he took every opportunity to promote. That his services to the profession were appreciated, and his wise counsel frequently called upon, is indicated by the offices that, in the course of a busy life, he filled—President of the Michigan State Medical Society, Regent of the American College of Surgeons, of which he was a founder, Vice President of the American Gynecological Society, Regent of the University of Michigan, Lt. Col. A.E.F. commanding the American Unit which he organized and took over-seas.

But not for the well deserved honors which came to him will Dick be remembered, but because that vital personality made such a marked impression on all with whom he came in contact. He was interested in many things and possessed a restless energy which took him into many fields, into civic and social affairs, to prize fights and tennis tournaments. Whether it be the history of or the game of golf, or the study of prehistoric man, into the subject he went with all his enthusiasm.

His vast fund of energy and an indomitable will to succeed were largely responsible for his surgical success. More than most men he made the most of his talents. A careful operator, his outstanding preeminence was due to a rare sense of surgical judgment which came as the result of careful observation, intense study and long experience.

He was a most interesting conversationalist with great charm of manner. He will be sadly missed by a great host of friends who appreciated the surgeon but loved the man.

Burton P. Corbus

President, Michigan State Medical Society

EDITORIAL

ARE YOU A "CLINIC"?

■ Particularly in the last few years it has become a rather common occurrence for one or more physicians to operate under the name "clinic." In this way the use of individual names of the members of the group are suppressed and, in many cases, a less personal relationship is established.

Occasionally this is done as a matter of convenience; often, to reap the benefits of the reputation achieved by some of the large nationally known groups; and perhaps frequently, because the arrangement of service is according to the definition of a "clinic" as commonly understood and thus it is desirable to use this descriptive term.

Recently, a decision from one of the companies which sells protective insurance against malpractice suits came to light. They say the name "clinic" carries with it the implication of an organization which is equipped to render a superior quality of medical service and the patient entering has a right to expect that he will receive a greater degree of care and skill than he would at the office of an ordinary private practitioner. Consequently, any physician operating under such a name would be held to a higher degree of care and skill than the general practitioner in the event he should be made the defendant in an action for malpractice, according to the legal lights of the indemnification company.

Another feature stressed is that each man with offices in the "clinic" building may be held liable for any negligence on the part of any of the others, whether medical, dental, or other, since the word "clinic" carries with it the implication of a partnership. Of course, the interest of the insurance company was that the rate to cover malpractice insurance for anyone who comes in that classification would be considerably higher than when practicing under one's own name as an ordinary private practitioner.

If you wear a high silk hat you may get your ears frozen.

IN THE FRONT LINE

■ It is with a great deal of satisfaction that the medical profession of Michigan finds its position, in the fight to combat syphilis, well in the vanguard of the national program.

Doctor Vonderlehr of the United States Public Health Service urges intense activity at three points to meet this "challenge of syphilis to our children":

1. **Education about the facts for everyone**
2. **Location of every case of syphilis by utilizing the full value of the blood test**
3. **Adequate treatment for every case of syphilis.**

The Michigan State Medical Society under the direction of the Syphilis Control Committee has been conducting its program along these lines to the fullest extent.

The U.S.P.H.S. lists seven things which every woman should know and do:

1. Insist upon a complete physical examination before marriage for both herself and her husband, including a blood test for syphilis. Syphilis can wreck marriage.
2. Go to the doctor at the first sign of pregnancy. It does no harm to see a doctor after you have missed a period even though you should not be pregnant. The sooner you are in the doctor's care the more he can help you, the safer your baby's health.
3. During each pregnancy you should insist upon a blood test for syphilis as early as possible. The test should be repeated at the seventh month.
4. Start treatment immediately upon detection of a syphilitic infection. Treatment must be continued without interruption at least until the birth of the child.
5. If the mother has syphilis, be sure there are careful periodic examinations and supervision of the infant after birth. These are necessary to guard against possible late symptoms of congenital syphilis.
6. Treatment of the infected mother must continue after the pregnancy period to insure permanent cure.
7. Syphilis can be cured only by competent treatment. Consult a good physician. Self-treatment will not help you, and will make cure more difficult. The quack doctor cannot cure syphilis, and he is only after your money.

Continue your good work in seeing that every patient who comes to you for a premarital examination knows and understands these instructions.

Free Michigan from syphilis.

DON'T NURSE BABIES

■ The U. S. Department of Labor through one of its bureaus supervises the administration of the State Unemployment Compensation Commission. This is a program through which specified payments are made to the worker who is available for work in industry but for whom there is no employment.

Some of the rulings are indeed weird.

Up to very recently, a woman who had been employed in industry was considered available for work throughout her pregnancy. In other words, if employment was offered her she must accept it or else be barred from receiving unemployment compensation. At present, the ruling has been modified to the effect that during the last three months of pregnancy the prospective mother is classed as being ill and cannot collect for being out of work. **However, a month after the baby is born she is again considered an eligible unemployed worker and is entitled to unemployment compensation; but if employment is offered she must accept it or again be forbidden the money accrued to her under this act. Obviously, there is a strong pressure, economically, put on the young mother to detail the care of the infant to someone else and to feed it artificially.** To most mothers the ten to fifteen dollars a week looms large when compared with the rather vague (to her) benefits of nursing her child.

Also under the Labor Department is the Bureau of Child Welfare which is vigorously sponsoring a program to encourage the nursing of babies by their mothers.

When the governmental bureau seeks to regulate human lives and desires through pecuniary compensation, in opposition to the natural instinct and maternal desires (and the protection of our future citizen) it cannot be considered other than contrary to public policy. It is not a far step from such a program to the communistic state-owned and controlled child.

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

The Department of Postgraduate Medicine offers the following summer courses:

Nutritional and Endocrine Problems, by Dr. L. H. Newburgh and Staff.....June 3-6

The management of diabetes. Undernutrition. Vitamin deficiencies. Hypoglycemia. Obesity. Edema. Nephritis. Diseases of the endocrine glands.

Allergy, by Dr. John L. Sheldon, Resident Medical Staff and Guest Lecturers. June 17-21

The management of hay fever and asthma. Demonstration and interpretation of skin tests. Allergic eye and skin diseases. Allergic manifestations in children. Patch testing. Angioneurotic edema. Preparation and use of extracts.

Pathology, by Dr. Carl V. Weller and Staff.....June 24-August 16

(1) Special Pathology of Neoplasms .....June 24-July 5
(2) Female Genito-Urinary Organs .....July 5-July 19
(3) Special Pathology of the Eye.....July 22-Aug. 2
(4) Special Pathology of Ear, Nose and Throat.....August 5-16

Summer Session Courses.....June 24-August 16

Dermatology and Syphilology	8:00 A.M. daily
Internal Medicine (ward rounds)	9:00-11:00 A.M. daily
Hematology	10:00-12:00 Monday and Wednesday
Clinical Microscopy	8:00-11:00 Monday, Wednesday and Friday
Neurology (lectures)	1:00 P.M. daily
Obstetrics and Gynecology (Out-patient service, case demonstration)	9:00-11:00 A.M. daily
Medical Roentgenology	1:30-4:30 P.M. daily
Surgical Anesthesia	8:00-12:00 A.M. daily
Surgical ward rounds	9:00-12:00 A.M. daily

Qualified physicians may enroll for one course or any part of it, or combine several courses for an individual program of study. Half-day attendance or alternate whole day attendance may be elected for certain courses by physicians in nearby centers. Further description will be sent upon request:

Department of Postgraduate Medicine
University Hospital
Ann Arbor, Michigan

DIAMOND ANNIVERSARY—MICHIGAN STATE MEDICAL SOCIETY

Outline of General Assembly Program

Detroit, September 25, 26, 27, 1940

	Wednesday, September 25	Thursday, September 26	Friday, September 27
A. M. 9:30 to 10:00	John H. Musser, M.D. New Orleans, Louisiana Medical subject		P. A. Neal, Washington, D. C. Industrial Health Subject
10:00 to 10:30	Hugh H. Young, M.D. Baltimore, Maryland Surgical subject		Henry C. Sweany, M.D. Chicago, Illinois Tuberculosis subject
10:30 to 11:00	INTERMISSION TO VIEW EXHIBITS	SEVEN SECTION MEETINGS THURSDAY MORNING	INTERMISSION TO VIEW EXHIBITS
11:00 to 11:30	Wm. S. McCann, M.D. Rochester, New York medical subject		Speaker on Maternal Health invited
11:30 to 12:00	Ambrose L. Lockwood, M.D. Toronto, Ontario Surgical subject		Speaker on Mental Hygiene invited
P. M. 12:00 to 12:30	(to be filled)		Speaker on Child Welfare invited
12:30 to 1:30	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS
1:30 to 2:00	Paul A. O'Leary, M.D. Rochester, Minnesota Dermatological subject	Walter Ivan Lillie, M.D. Philadelphia, Pennsylvania Ophthalmological subject	Edw. Wm. Alton Ochsner, M.D. New Orleans, Louisiana Surgical subject
2:00 to 2:30	Wallace M. Yater, M.D. Washington, D. C. Medical subject	John G. Downing, M.D. Boston, Massachusetts Dermatological subject	Chevalier L. Jackson, M.D. Philadelphia, Pennsylvania Otolaryngological subject
2:30 to 3:00	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS
3:00 to 3.30	Ralph M. Waters, M.D. Madison, Wisconsin Anesthesia subject	Thos. T. Mackie, M.D. New York City Medical subject	John D. Camp, M.D. Rochester, Minnesota Radiological subject
3:30 to 4:00	Charles F. McKhann, M.D. Boston, Massachusetts Pediatric subject	Joseph Stokes, Jr., M.D. Philadelphia, Pennsylvania Pediatric subject	Jacob P. Greenhill, M.D. Chicago, Illinois Obstetrical subject
4:00 to 4:30	Richard N. Pierson, M.D. New York City Obstetrical subject	J. Deryl Hart, M.D. Durham, North Carolina Surgical subject	Reginald Fitz, M.D. Boston, Massachusetts Medical subject
4:30 to 6:00	VIEW EXHIBITS	VIEW EXHIBITS	END OF CONVENTION
6:00 to 8:00	President's Banquet	Alumni and Fraternity Dinners	
8:00 to 10:00	President's Night Rufus I. Cole, M.D. Mt. Kisco, New York	Postgraduate Convocation and Smoker	

All General Assemblies will be held in the Grand Ballroom, Book-Cadillac Hotel, Detroit.

THE experience of Michigan Medical Service during the first two months substantiates the soundness of the principles on which the medical profession has founded its plan.

The large number of persons who have expressed a desire to participate in the doctors' plan is real evidence that the people of Michigan want a non-profit, non-political, prepayment medical plan.

The coöperation of the great majority of doctors of medicine in the state is further confirmation of the desirability of a professionally controlled plan for the application of the insurance principle to payments for medical service.

The payment of thousands of dollars to doctors of medicine *according to the full schedule of benefits* demonstrates that prompt payment for service rendered and no losses because of bad debts or charity service are realities under a medical service plan.

The lack of red tape and the careful observance of professional relations illustrate the wisdom of establishing Medical Advisory Boards and of having all administration under medical supervision.

Enrollment

During March and April, 61,709 persons were enrolled in Michigan Medical Service. Of these persons, 1,341 are enrolled in the **Medical Service Plan** and entitled to receive services of doctors of medicine in the home and in the office as well as medical and surgical care in the hospital; 60,368 are enrolled in the **Surgical Benefit Plan** and entitled to surgical and x-ray services *when a bed patient in the hospital.*

Michigan Medical Service is now in actual operation throughout the state, and doctors in practically every locality may have patients who are subscribers. Every week new groups of subscribers are being enrolled; a new state-wide group of more than 800 subscribers is the employees of the Michigan Unemployment Compensation Commission.

Payments for Services

The substantial number of subscribers enrolled has made possible a normal demand for services and sufficient funds to pay the full schedule of benefits to all doctors.

During March $11,465.25 was paid for services rendered. For services rendered during April, doctors will receive at least $20,000, through Michigan Medical Service. The payment to doctors of the full prevailing charge for each service is a primary purpose of Michigan Medical Service; a corollary to the purpose of helping subscribers meet medical bills by making small payments monthly in advance.

Coöperation of Doctors

A most significant experience has been the fact that doctors of medicine coöperate wholeheartedly in a medical service plan that is properly organized and professionally administered.

Applications for Registration are being received daily to add to the total of 3,047 doctors of medicine who have indicated their willingness to participate in Michigan Medical Service. All doctors of medicine who have not already done so are urged to send in their applications immediately. The united support of Michigan

MICHIGAN MEDICAL SERVICE REGISTRATION HONOR ROLL

Members of our County Medical Societies are recognizing the great social value of Michigan Medical Service, and have indicated their belief and their desire to participate by a high percentage of registration with Michigan Medical Service.

Below is listed the "Honor Roll," those societies with a registration (as of April 10, 1940) of 75 per cent or more of their membership:

100 per cent

Menominee
Newaygo

90 to 99 per cent

Wexford-Kalkaska-Missaukee

80 to 89 per cent

Calhoun
Grand Traverse-Leleenau-Benzie
Tuscola

75 to 79 per cent

Hillsdale
Ontonagon
St. Joseph

Additional registrations being received daily will soon place other societies on the Honor Roll. An Application for registration may be found on page 424 for the convenience of physicians. Merely remove the blank, sign and return it to 2014 Olds Tower, Lansing.

Medical Service by the entire medical profession of Michigan will give pause to those who cry that doctors cannot agree on anything.

Michigan Medical Service will be just what every individual doctor makes it. Sincere enthusiastic coöperation plus real effort to make the plan serve both the patient and the doctor in overcoming the economic burden of illness should be the contribution of every doctor.

How to Help

Each doctor can do his part by noting the following points:

1. Send an Initial Service Report on the form provided by Michigan Medical Service immediately when your services are requested by a subscriber.

Note: (a) Subscribers to the Medical Service Plan may receive services of doctors of medicine in the home and office as well as medical and surgical care in the hospital—including consultation, x-ray, laboratory and anesthesia services. Obstetrical care is included after twelve months of membership.

For tuberculosis, venereal diseases and mental disorders, only those services necessary to establish a diagnosis will be provided. For cancer and malignant growths, services necessary to establish a diagnosis and the initial operative or radiologic treatment will be provided.

Surgical treatment of appendicitis and hernia is not included if the subscriber has had one or more attacks previous to the date of his certificate.

Medical services for alcoholism, drug addiction, self-inflicted injuries and Workmen's Compensation cases are not benefits under Michigan Medical Service. Nor are drugs, materials, appliances or supplies to be paid for by Michigan Medical Service.

(b) **Subscribers to the Surgical Benefit Plan** are entitled to surgical and x-ray services only *when a bed patient in the hospital.* Obstetrical care in the hospital after twelve months' membership is also provided.

Surgical Services include operative and cutting procedures for the treatment of disease and injuries, and the treatment of fractures and dislocations (when performed in a hospital). Strictly medical or diagnostic services in the hospital are not included as a benefit of this partial service plan.

X-ray services include diagnostic x-rays not to exceed $15.00 during a subscription year for each person enrolled.

2. Please inform subscribers who inquire about the payment of the initial charge ($5.00) under the **Medical Service Plan** that Michigan Medical Service will send them a notice when payment is due.

Note: The initial charge, up to $5.00, will be collected directly from the subscriber by Michigan Medical Service. The doctor's bill for services, *including the initial charge* (whether $5.00 or less), will be paid to the doctor by Michigan Medical Service.

3. At the completion of services, but not later than the end of each month, a Monthly Service Report (the bill form for services rendered) should be sent to Michigan Medical Service. The Monthly Service Report forms will be supplied by Michigan Medical Service.

NOTE: Monthly payments can be made if doctors bill promptly. Be sure to complete your Monthly Service Report in full to avoid delay in approval for payment.

"There is indication today that the back-breaking federal health program proposed by Senator Wagner has been abandoned. The President of the United States, we have reason to believe—at least for the present, has considered this bill extravagant and unachievable. For how long this economic retraction is good there is no way of predicting. There is one prediction, however, that offers hope; that is that if every physician made it his business to acquaint his patients and his friends with the evils of politically administered medicine, there would be a permanent cessation of effort on the part of the politician to force this foreign system upon a free people."—*Nebraska State Medical Journal, March, 1940.*

If you have not already done so, please sign and return to:
Michigan Medical Service, 2014 Olds Tower, Lansing, Michigan

APPLICATION FOR REGISTRATION
with
MICHIGAN MEDICAL SERVICE

_____ 1940

To Michigan Medical Service:

I am a doctor of medicine, duly licensed to practice in the State of Michigan, willing to provide medical services under the medical service plan of Michigan Medical Service, a non-profit corporation, and I hereby apply for registration thereunder.

I agree to abide by the Articles of Incorporation, By-Laws, and the Regulations of Michigan Medical Service, and amendments thereto, in matters relating to the Michigan Medical Service plan, and the same are made a part hereof.

I agree to furnish reports of services rendered to patients under the medical service plan of Michigan Medical Service, to accept compensation for such services in accordance with the regulations of Michigan Medical Service, and, unless permitted by these regulations, to make no direct charge to such patients for services rendered under the Michigan Medical Service plan.

No parties other than myself or Michigan Medical Service shall have any right as the result of any agreement between myself and Michigan Medical Service.

It is understood that I may at any time discontinue participation in the Michigan Medical Service plan by giving fifteen days' notice in writing to Michigan Medical Service.

.....M.D.

My office address to which all communications from Michigan Medical Service are to be sent is:

....
(Please print or typewrite name) (Street and number) (City or town)

Physicians who are NOT members of the Michigan State Medical Society please enclose $5.00, which is the per capita payment made by the Michigan State Medical Society on behalf of members.

Specialists may register to provide only those services in their specialty.

MEDICO-LEGAL EVIDENCE*

By L. M. Ford, LL. B., J.D.

Unfortunately, for the accused in the trial of a malpractice case, he is confronted with twelve non-medical men with human prejudices, and human sympathies, as the judges of his work and they are often horrified by the exhibition of an injury frequently aggravated by the neglect of the patient. All these circumstances are played up to full advantage by plaintiff's counsel for the purpose of eliciting sympathy or creating prejudice.

In order to protect the practitioner against injustice incident to these circumstances, as well as the ignorance and prejudices of jurors, the courts have announced certain rules governing the trial of a civil malpractice suit. This article will discuss these rules in two phases. First, the character of evidence necessary to show negligence. Second, the qualification of the witness who gives such evidence.

Evidence to Show Negligence

The first of these rules grows directly out of the fundamental rule underlying the liability of a physician and surgeon. "Most professional men are employed or retained in order that they may give the benefit of their peculiar and individual judgment and skill. A lawyer, for instance, does not contract to win a law suit, but to give his best opinion and ability. He has never been held to liability in damages for a failure to determine disputed questions by Courts of Appeal. It would be just as unreasonable to hold a physician liable for more than average care and skill in determining uncertain problems presented in surgery and medicine. Those problems concern, in the first place, the constitution of the human mind and body, and in the second place, the nature of his science itself. The surgeon does not deal with inanimate or insensate matter like the stone mason or bricklayer, who can choose his materials, and adjust them according to mathematical lines, but he has a suffering human being to treat, a nervous system to tranquilize and an excited will to regulate and control. Where a surgeon undertakes to treat a fractured limb he has not only to apply the known facts and theoretical knowledge of his science, but he may have to contend with very many powerful and hidden influences, such as want of vital force, habit of life, hereditary disease, the state of the climate. These, or the mental state of his patient, may often render the management of a surgical case difficult, doubtful and dangerous; and many have greater influences in the result than all the surgeon may be able to accomplish, even with the best skill and care."

"On two historic occasions the greatest surgeons in our country met in conference to decide whether or not they would operate upon the person of a President of the United States. Their conclusion was the final human judgment. They were not responsible in law, either human or divine, for the ultimate decree of nature. The same tragedy is enacted in a less conspicuous manner every day in every part of the country. The same principles of justice apply. Shall it be held in such cases where there is a fundamental difference, among physicians, as to what conclusion their science applied to knowable facts would lead to, that what they with their knowledge, training and experience are unable to decide, and what, in the nature of human limitations, is not susceptible of certain determination shall be autocratically adjudged by twelve men in a box, or by one man on the bench, or by a larger number in an Appellate Court, none of whom are likely to have the fitness or capacity to deal with more than the elements of the controversy?"

No "Cure"

Hence the undertaking of the medical practitioner is not that he will effect a cure but that he will treat his patient in the manner that the average physician or surgeon would under like circumstances. The law recognizes that the practitioner can follow no set rules in treating his patient and hence holds him to none.

It recognizes the practice of his profession as a science and requires him to apply to the treatment of any given case the precepts of that science as dictated by his best judgment. Hence there must be some affirmative proof that what the accused did was not the application of the principles of his science in the manner they would have been applied by the physician and surgeon of average care and skill. Under the decisions of our courts this question cannot be

*This article is Part I in the second of a series of authoritative discussions on medico-legal problems written by Mr. Ford, Attorney for the Medical Protective Company, Wheaton, Ill. Part II of this article will follow in the next issue.

determined by comparison with the usual standards of human action but must be determined by the evidence of those who are expert in this field of endeavor. In a suit for malpractice this evidence can only be given by physicians and surgeons and this rule is well sustained by the decisions of our court.

Taft's Decision

In a suit involving the treatment of an eye in which a judgment was rendered against the physician, Judge Taft, then a member of the United States Circuit Court, said: "In many cases expert evidence, though all tending one way, is not conclusive upon the court or jury, but the latter, as men of affairs may draw their own inference from the facts and accept or reject the statements of experts; but such cases are where the subject of discussion is on the border line between the domain of general and expert knowledge, as for instance, where the value of land is involved, or where the value of professional services is in dispute. There the mode of reaching conclusions from the facts when stated is not so different from the inferences of common knowledge that expert testimony can be anything more than a mere guide. But when the case concerns the highly specialized art of treating an eye for cataract, or for the mysterious and dread disease of glaucoma with respect to which a layman can have no knowledge at all, the court and jury must be dependent on expert evidence. There can be no other guide, and, where want of skill or attention is not thus shown by expert evidence applied to the facts, there is no evidence of a proper nature to be submitted to a jury.

The Supreme Court of Vermont, in an opinion reversing a judgment against a physician for malpractice, says: "The defendant's motion should have been sustained, for to warrant the finding of malpractice it was necessary to have medical expert testimony to show it, and there was none; but, on the contrary, there was such testimony tending to show that the treatment was proper, and according to the principles and practice of defendant's profession. It was not enough to show merely that the treatment was injurious, but it was necessary to go further, and show by competent witnesses that the requisite care and skill was not exercised in giving it, for that was the only question and that was not done." *(To be continued)*

UPPER PENINSULA MEDICAL SOCIETY

Meeting of 1940

Menominee, Michigan

July 10 and 11, 1940

PROGRAM

Wednesday, July 10, 1940

10:00 A.M.—Registration, Menominee Hotel.
12:00 M.—Testimonial Luncheon to Officers of Michigan State Medical Society. Brief addresses by President B. R. Corbus, Grand Rapids and Secretary L. Fernald Foster, M.D., Bay City

Afternoon Session

S. C. Mason, M.D., presiding

1:30—Albert H. Montgomery, M.D., Chicago. "Abdominal Conditions in Children."
2:15—Vincent J. O'Connor, M.D., Chicago. "Recent Progress in Urology."
3:00—Intermission to View Exhibits.
3:30—Rollin G. Woodyatt, M.D., Chicago. "Diabetes."
4:15—L. E. Hamlin, M.D., Norway, Mich. "Silicosis."
5:00—Business meeting.

Evening Session

6:30—Annual Banquet, Riverside Country Club.
Speaker: R. G. Leland, M.D., Chicago. "Health of the American People."
Dancing and entertainment.

Thursday, July 11, 1940

Morning Session

S. C. Mason, M.D., presiding

9:00—W. L. Sherman, M.D., Detroit. "Anuria."
9:45—LeMoyne Snyder, M.D., Lansing. "Medicolegal Problems."
10:30—Intermission to View Exhibits.
10:45—Elmer L. Sevringhaus, M.D., Madison. "Treatment of the Menopause."
11:15—L. D. Smith, M.D., Milwaukee. "Fractures of the Hip."

Luncheon and Afternoon Session

12:15—Luncheon and Round-table Discussion on "Laboratory Problems." Sponsored by State Health Commissioner H. Allen Moyer, M.D., and the State Board of Health.

COMMUNICATION

East Lansing, Michigan
May 10, 1940.

Dr. L. Fernald Foster
2020 Olds Tower
Lansing, Michigan
Dear Doctor Foster:

I should like to take this opportunity to thank the Michigan State Medical Society for assisting me so ably in the recent case of Muir vs. LeDuc and Doub. I shall always be obligated to the Society for its timely assistance.

Very truly yours,
Don M. LeDuc, M.D.

YOU AND YOUR BUSINESS

"THE CASE FOR PRIVATE MEDICINE"

Nation's Business for May presents a very excellent article entitled "The Case for Private Medicine." This is a fine, straightforward factual story which every doctor of medicine in the United States should read, and should by all means recommend to his patients and friends. The May *Nation's Business* should be on the table in every doctor's waiting-room in the land.

Merle Thorpe, Editor and General Manager of *Nation's Business,* knows the facts about the evils of state-managed medicine and has the courage to present this information to his public. Congratulations, Editor Thorpe!

RELIEF CLIENTS MAY PICK OWN PRACTITIONER

County social welfare directors and board members had it called to their attention Friday that relief clients have the legal right to choose their own type of doctor, whether medical, osteopathic or chiropractic.

In a notice from the state social welfare commission, signed by Mrs. George W. Rogers, director, provisions of law bearing on the subject, were re-stated. The notice concluded:: ". . . Therefore if a client requests that he be treated by an osteopathic physician or a chiropractor, the law provides that his request shall be given the same consideration as though he had requested a doctor of medicine."

The commission's notice came as the result of a protest from Representative Warren G. Hooper (R) of Albion that some county relief officials were discriminating in favor of local medical associations.—*Lansing State Journal,* April 26, 1940.

Representative Hooper, who represented the osteopaths at this hearing, is chairman of the Public Health Committee in the Michigan House of Representatives.—Editor.

FEES FOR WITNESSES

"No expert witness shall be paid or receive as compensation in any given case for his services as such, a sum in excess of the ordinary witness fee provided by law, unless the court before whom such witness is to appear, or has appeared, awards a larger sum." This is a quotation from Section 14223 of the Michigan Compiled Laws of 1929. It applies to testimony in a court of record and specifically authorizes the court to grant fees in excess of the statutory amounts, which in Section 17483 are set at the following maximum limits: $2.00 for a full day, $1.00 for a half day, plus 15 cents a mile, one way, for traveling expenses.

Justice Court fees for witnesses are $1.50 a full day, 75 cents a half day, plus 15 cents a mile, one way, for traveling expenses.

Fees for attending coroners' inquests are set (in Section 15484) at $2.00 for each day's attendance and $1.00 for each half-day, plus 10 cents a mile, one way, to cover traveling ex penses. If a doctor gives expert testimony in a coroner's inquest, there is no legal provision for paying an expert witness fee. A physician has the right to decline to give expert testimony in a coroner's inquest, as well as in a court of record. But if he gives expert testimony in a coroner's court, the statute limits the compensation as above indicated.

Section 17415 authorizes a coroner to summon the attendance of a competent surgeon whenever he shall deem it necessary, and the surgeon shall receive such compensation for his services as shall be allowed by the County Auditor. This applies to autopsies performed by a surgeon.

ANTIDOTE TO SLEEPLESS NIGHTS

The following recommendations cannot be repeated too often:

1. In any injury involving a joint, obtain an x-ray.

2. In any injury of more than minor severity, secure an x-ray.

3. In every fracture, secure and retain the x-ray, before and after reduction, at intervals during the progress of repair, and a final x-ray when the patient is about to be discharged.

4. In severe, comminuted, compounded or

multiple fractures, obtain one or more consultants and have them record their observations and advice upon the record chart.

5. Keep accurate records and under no circumstances relinquish their possession.

6. Never start legal action for the amount of your services until the statute of limitations has expired.

7. Be guarded in your prognosis and withhold glowing promises. Be frank with the patient and relatives; inform them as to what complications may arise.

8. Visit your patient frequently the first three days and instruct the nurse or relatives to promptly advise you if persistent pain continues or undue edema is noted; see your patient regularly at short intervals.

9. Before reduction and also after reduction, investigate to ascertain if there is any nerve injury. If in doubt call a neurologist in consultation.

10. Remember that it is always the neglected case, the simple fracture and the "old patient" that produces bad end-results and eventuates in claims and suits for malpractice.

11. If you are disinclined to accord every patient who has sustained a fracture this type of professional care, then do not undertake to treat fractures. If you fail to observe these rules, sooner or later you will encounter legal difficulties.

12. Memorize these recommendations and you'll help to decrease claims and suits for malpractice.

THE DUTIES OF PHYSICIANS TO EACH OTHER AND TO THE PROFESSION AT LARGE

ARTICLE 1.—Duties to the profession uphold honor of profession.

Section 1.—The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thraldom is to take away all liberty from one's action and thought." (Nicon, father of Galen.)

Medical Societies

Section 2.—In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.—Extract from Chapter III of *Principles of Medical Ethics.*

OUR INDUSTRIAL STATE

1. Population (1930) 4,842,325—3.94 per cent of United States
2. Population engaged in industries
   a. Manufacturing (1935) 535,864—7.26 per cent of United States
   b. Agriculture (1937) 310,955—2.50 per cent of United States
   c. Mining (1930) 20,380—2.10 per cent of United States
   d. Forestry and Fishing (1930) 12,531—5.00 per cent of United States
3. Value added to products (1935)
   a. Manufacturing $1,588,489,000—8.1 per cent of United States
      Michigan ranks fifth among the states and is exceeded only by New York, Pennsylvania, Illinois, and Ohio. (In value of goods manufactured Michigan produces $4,020,909,000 or 8.75 per cent of United States and is exceeded only by New York and Pennsylvania.)
4. Value of products produced in Michigan
   a. Agricultural (1937) 65 crops $155,148,000—2.4 per cent of United States total
      Michigan ranks seventeenth among the states with practically the same value for farm products as Kentucky and Alabama.
   b. Mining and petroleum (1937) $119,167,000—2.2 per cent of United States total
      Michigan ranks twelfth among the states
5. Population distribution and value of products within Michigan (two-thirds business automobiles)

	Population	Value
Manufacturing	61.0%	85.2%
Agriculture	35.3	8.4
Minerals	2.3	6.4

The California Physician's Service, March 15, had 275 Total Groups; 9,100 Total Members and Unit Value (December) was $1.60.—*California and Western Medicine* (March, 1940).

✶ YOU AND YOUR GOVERNMENT ✶

W. A. MARKLAND SAYS

The *Detroit News* veteran of political commentory wrote the following paragraphs about Lansing activities in his column of Sunday, April 21, 1940:

"That peculiar offshoot of State government, the Emergency Appropriations Commission, spent a recent afternoon in Lansing, handed out nearly half a million dollars, and went home. It was that easy.

"Among the beneficiaries of its wisdom and generosity were three veterans' organizations who wanted help in financing this year's conventions. This was just an illustration of how easy it is for legislators to see an "emergency" when it is pointed out by powerful, organized voting groups.

"There is a widespread belief that the Emergency Appropriations Commission, created in 1937, has exceeded its authority in this respect, and in others, but there have been no formal opinions from the attorney-general on that subject. There is a reason for that. Members of the commission approached Atty.-Gen. Raymond W. Starr in the 1937-38 Administration and talked over the matter of handing out money for conventions.

"'It's illegal,' said Starr, in effect.

"'Well, if that is the way you feel about it, never mind writing any opinion for us,' said the commission members.

"Members of the present commission also have discussed the problem with members of the staff of Atty.-Gen. Thomas Read.

"'We would be glad to prepare an opinion for you, but we don't think you want it,' the questioners were told.

"That was plain enough—and that's the reason you can search the commission records and the files of the attorney-general without finding any such opinion."

Meanwhile, Crippled Children, wards of the State, are being denied real emergency treatment in all parts of Michigan for lack of an adequate appropriation to furnish hospitalized care most direly needed!!!—Editor.

THE WAGNER-GEORGE HOSPITAL CONSTRUCTION BILL OF 1940

The purpose of U. S. Senate Bill 3230 is to offer grants in aid to assist states and other political sub-divisions in constructing, improving and enlarging needed hospitals especially in rural communities and economically depressed areas, and to assist in the maintenance of such hospitals and in the training of personnel.

The sum of $10,000,000 per annum for six fiscal years would be appropriated.

Plans for hospitals are to be submitted to the Surgeon General of the United States Public Health Service, who would administer the Act, for which an additional $500,000 for each of the six fiscal years would be appropriated. During the first year the Surgeon General would have control of the building of the hospitals, erected by the Federal Works Agency by funds transferred to it by the Federal Security Administrator. The federal government will lease the buildings to the political subdivisions, and if the Surgeon General finds that the lessee has operated any such hospital for five years in accordance with the rules and regulations, the Federal Security Administrator shall convey such hospital to the lessee thereof, upon recommendation of the Surgeon General.

After the first year grants of not less than 25 per cent nor more than 90% of the cost of construction and equipment, not counting cost of the site will be made to the states to build hospitals. If the Surgeon General deems it necessary, the U. S. may aid in financing the maintenance of the hospitals for the first five years.

Three Amendments Proposed

Senate Bill 3230 now has the following definition of the term "hospital":

"The term 'hospital' includes health, diagnostic and treatment centers, the equipment thereof and facilities relating thereto."

This definition has been taken almost verbatim from Senator Wagner's national health bill, S-1620. It finds no justification in anything contained in the President's special message to Congress suggesting a hospital building program which, presumably at least, the reported bill attempts to effectuate.

The potentialities wrapped up in this definition need not be emphasized! Under the bill, with this definition in it, health, diagnostic and treatment centers may be constructed and maintained entirely separate and apart from hospitals as they are now known to exist. The impact

that such a building program would have on the practice of medicine in Michigan and in the United States can easily be visualized, since as the Senate Committee's report suggests, the pending bill is framed to fit in with a larger program being evolved by the Committee, this definition is of major importance. As a matter of fact, there is no need for any definition of the term "hospital" in the bill, unless it is contemplated that its provision shall relate to facilities other than those commonly known and recognized as hospitals. From the standpoint of Medicine, the bill would be a much more acceptable measure if the definition of the term "hospital" were stricken from it.

The bill creates a "National Advisory Hospital Council" which is given very limited authority in the bill as reported, except during the first year of operation when all applications must be approved by the Council. Thereafter, it may only advise—which is the first objection. In the second place, it is felt that the appointment of the Council should be lodged with the President of the United States, rather than with the Surgeon General of the United States Public Health Service. This thought is expressed without any desire to reflect on the Surgeon General, but if the Council is to function adequately or is to assume any important place in the hospital construction picture, it would seem that the President might have a somewhat more detached viewpoint as to the qualifications to be possessed by its members.

The above views on the three suggested amendments have been transmitted by the Michigan State Medical Society to Prentiss M. Brown and Arthur H. Vandenberg, Michigan Senators in Washington, D. C., who have expressed coöperative interest in these proposed changes.

TRYING TO JUSTIFY FEDERAL CONTROL

Few persons who are really sick have been unable to obtain proper medical care. It is hard to believe the general conclusions of the Interdepartmental Committee when we find that the health of the nation has never been as good as it is now. This Interdepartmental Committee to Coördinate Health and Welfare Activities of the federal government was a typical New Deal setup, created to justify and publicize a preconceived plan for extending federal control over the whole problem of health. Its reports exaggerate the need, and try to present a picture of neglect and medical inefficiency, which is very far indeed from the truth. As a matter of fact, the accomplishments of medicine in the United States in the past fifty years have been extraordinary, and have not been exceeded in any other country in the world.

—Robert A. Taft,
U. S. Senator from Ohio.

A MICHIGAN MAN TELLS CONGRESS

"The assessed valuation of property in my own State of Michigan in 1936 was $5,630,426,000. Michigan paid into the Federal Treasury during the first six years of this Administration, from July 1, 1933 to June 30, 1939, $1,275,840,264, or a sum equal to nearly 23 per cent of Michigan's 1936 property valuation. It has been estimated that the taxpayers of Michigan have paid, in addition to that sum, during those same six years, somewhere around $1,500,000,000 in state and local taxes, fees, etc. When we add this state and local tax burden to the Federal burden, we find that the people of Michigan—and they are all taxpayers, direct and indirect—have paid into the Public Treasury during those six years a sum that equals nearly 50 per cent of the assessed valuation of every piece of real and personal property placed upon the assessment rolls by the local assessing officers in 1936.

"Michigan's population in 1930 was 4,842,345. This means that there has been collected in Michigan in various kinds of taxes, Federal, state, and local during those six years, a sum equaling somewhere around $500 for every man, woman and child in the State, or a sum equal to about $2,000 for every family of four in the State."—Rep. Albert J. Engel, Michigan, May 7, 1940.

"A cancer specialist," Edward LaMotte of Garden, Michigan, located in the Upper Peninsula, pleaded guilty on May 9 to the charge of practicing medicine without a license. LaMotte was sentenced to three years' probation during which time he must make monthly appearances before the sentencing judge to prove he is not practicing medicine in any form within Michigan, under penalty of spending six or more months in jail. Credit for curtailing the activities of this layman goes to Captain L. A. Potter, Inspector for the State Department of Health, and members of the medical profession in Delta County.

TREATMENT OF CANCER

As Advocated by the Cancer Committee of the Michigan State Medical Society and the Michigan State Department of Health

The treatment of cancer must remain empirical until we learn more of the fundamental facts of the disease. It is not surprising that many authorities using different therapeutic agents and combinations of agents and different criteria of evaluation have arrived at various conclusions, many of which seem contradictory. At present, the picture is confusing. The minds of many physicians cannot but reflect this confusion when confronted with a patient afflicted with a cancer.

The Cancer Committee of the State Medical Society, working in collaboration with the State Department of Health, inaugurated a program of post-graduate education in cancer beginning in May of 1939. The primary purpose of the endeavor was to improve the treatment of malignancy. To accomplish this a field representative visited almost every community in the State, contacting as many members of the medical profession as possible. As a basis for this work a specific plan of therapy for the more common types of malignancy was formulated. In compiling the outline many factors were taken into consideration. The literature was reviewed and the larger clinics in the East and Midwest were visited. The procedures advocated are those used in the majority of the larger cancer centers. It is readily admitted that for any one procedure advocated or statement made, evidence can be found in the literature to question or refute it. It is also true that in the next six months or a year medical progress may prove some of these procedures inferior. Because of this the Cancer Committee plans to re-edit and enlarge the outline at appropriate intervals.

The standardization of therapeutic procedures in treatment of cancer does not solve the cancer problem in an area as large as the State of Michigan. Geographical, social and economic factors as well as availability of adequate equipment and specialized personnel are important factors in deciding just how any one case of cancer is treated. Michigan is one of the largest states. It is rural and sparsely populated in the north, urban in the south. Roughly, one-third of its area is a peninsula capping Wisconsin and separated from the main body of the state by the Great Lakes. The management of a patient with cancer in the Upper Peninsula and in the northern part of the Lower Peninsula is affected by many factors which do not hold in the southern part of the state.

The treatment of cancer should be virtually a cooperative enterprise on the part of clinician, roentgenologist and pathologist. In all the Upper Peninsula, however, there is no qualified roentgenologist or pathologist and no adequate therapeutic x-ray equipment. With the exception of Traverse City, the same is true of the Lower Peninsula north of Grand Rapids and Bay City.

Transportation of a cancer patient from the northern areas to the southern centers is expensive, especially when repeated visits must be made for treatment. Much of the population in these areas is not self supporting, in some counties 85 to 90 per cent of the people being on relief. The relief burden which most of these communities bear makes extensive and expensive therapy in the southern centers available to only a few. Such conditions must be taken into account in prescribing a course of management for cancer patients in those areas. The ideal treatment is recommended in every case but practically always some compromise solution must be offered.

In these areas emphasis should be placed on doing extensive thorough surgery. A carefully planned surgical procedure is much to be preferred to inadequate or inexpert use of radium or x-ray. It becomes the responsibility of the surgeons in the more isolated communities to perfect their procedures until coadjutant facilities become available. This does not condone, in any way, unquestioned inferior procedures. For example, carcinoma of the cervix should be treated by adequate x-ray and radium in every instance.

The Tumor Clinic, as advocated by the American College of Surgeons, approaches the ideal for the management of the cancer patient in the larger centers. By a meeting of minds and exchange of opinion among the clinicians, the radiologist and the pathologist two benefits are obtained. The first and most obvious is that the patient receives a consensus of the best opinion available in the locality as to treatment. Second, and most important in the long run, is the educational value and stimulating effect on the medical profession of the community.

The therapy of cancer has evolved a philosophy peculiar to itself. This viewpoint is basically pessimistic, assuming in any given case of cancer that the lesion is more extensive than the examination might indicate. Upon this is founded the rule to carry therapy to the limit when first instituted. There is no place for temporizing or half measures in the treatment of malignancy.

At the present stage of knowledge rules cannot be laid down for the standardized treatment of cancer of the oral cavity, tongue, lungs or bladder. The lymphoblastomas are relegated to the roentgenologist. Intracranial tumors belong in the hands of a selected few. Neoplasia of bone is a complex subject beyond the scope of this primary effort.

Cancer of the Lower Lip

Stage I.—Primary lesion less than 1 cm. in diameter and less than three months' duration, without palpable nodes or muscle infiltration. *Procedure Advised.*—Surgical excision or caustic irradiation of the primary. Observation of neck glands. *Prognosis.*—Approximately 90 per cent five year survivals.

Stage II.—Primary lesion greater than 1 cm. in diameter or of more than three to six months' duration with or without palpable nodes above the omohyoid muscle. *Procedure Advised.*—Surgical excision or caustic irradiation of the primary. Suprahyoid neck

gland dissection. Primary lesion in middle third of lip —do bilateral neck gland dissection. Primary lesion in outer third—do homolateral neck gland dissection. *Prognosis.*—Approximately 40 per cent five-year survivals.

Stage III.—Primary lesion of any extent with palpable metastases below the omohyoid muscle. *Procedure Advised.*—Palliative irradiation to the primary and the metastases. *Prognosis.*—Average length of life is about two years after onset of treatment.

Cancer of the Breast

Stage I.—Tumor localized to breast. *Procedure Advised.*—Excision of mass with histopathological examination, preferably frozen section, followed by radical mastectomy as soon as possible if malignant. This includes the removal of adequate skin, both pectoralis major and minor muscles, and the cleaning of the axillary vein from the subclavious muscle to the edge of the latissimus dorsi. Fractionated x-ray irradiation, two to six weeks postoperatively, in the amount of 1,600 to 2,200 roentgens total to each of four or five breast and axillary ports to be delivered in a three to four week period. *Prognosis.*—Approximately 70 per cent five-year survivals.

Stage II.—Tumor with questionable metastases to axilla, or with a few nodes along the anterior axillary fold but without fixation or skin metastases. *Procedure Advised.*—As in Group I. *Prognosis.*—Approximately 40 per cent five-year survivals.

Stage III.—Primary tumor with fixation or extensive skin involvement or with multiple or large axillary metastases. *Procedure Advised.*—Prove cancer by biopsy of primary mass or axillary node. Full cycle of irradiation as described above. Radical mastectomy six to eight weeks following completion of x-ray therapy. *Prognosis.*—Less than 7 per cent five-year survivals.

Stage IV.—Remote metastases present. *Procedure Advised.*—Palliative irradiation of local lesion and metastases. Simple mastectomy if the local lesion is large, ulcerating or secondarily infected. *Castration.*—The younger the women and the greater the possibility of pregnancy, the more definite are the indications for castration.

Cancer of Uterine Cervix

Stage I.—Localized to the cervix. *Prognosis.*—Approximately 50 per cent five-year survivals.

Stage II.—Early muscle infiltration, questionable spread beyond cervix into vault, parametria free. *Prognosis.*—Approximately 25 per cent five-year survivals.

Stage III.—Invasive growth, infiltration of vaginal vault and parametria. Cervix not completely fixed. *Prognosis.*—Approximately 18 per cent five-year survivals.

Stage IV.—"Frozen pelvis." Prognosis.—Approximately 9 per cent five-year survivals.

Procedure advised in any stage.—External irradiation cross firing the cervix and adnexal regions, total doses ranging from 1,600 to 2,400 roentgens to each of four pelvic ports. Intracavitary radium irradiation to at least 5,000 mg. hr. beginning one to four days following the external irradiation.

Cancer of the Body of the Uterus

Stage I.—Small, clearly localized lesions. *Procedure Advised.*—Curettage for biopsy. Intracavitary radium or external fractionated irradiation (1,800 to 2,400 roentgens to each of four pelvic ports cross firing the uterus). Bilateral salpingo-oöphorectomy and total hysterectomy 6 weeks after cessation of irradiation. *Prognosis.*—Approximately 75 per cent five-year survivals.

Stage II.—Infiltration of myometrium, questionable invasion beyond the uterus, no fixation. *Procedure Advised.*—Curettage for biopsy. External irradiation as described above. Bilateral salpingo-oöphorectomy and total hysterectomy six weeks after cessation of irradiation. *Prognosis.*—Approximately 25 per cent five-year survivals.

Stage III.—Definite invasion into parametria with limitation of mobility. *Procedure Advised.*—Biopsy. External irradiation followed by intracavitary radium implantation. *Prognosis.*—Less than 10 per cent five-year survivals.

Stage IV.—"Frozen pelvis" or with distant metastases. *Procedure Advised.*—Biopsy. External irradiation as above. Intracavitary radium to control hemorrhage. *Prognosis.*—Perhaps 1-2 per cent five-year survivals.

Cancer of the Ovary

Stage I.—Limited to one ovary with capsule intact. No fixation or demonstrable metastases.

Stage II.—Involvement of opposite ovary. Normal mobility of pelvic organs. No demonstrable metastases.

Stage III.—Fixation of primary tumor with loss of mobility of pelvic organs. Discrete involvement of pelvic nodes.

Stage IV.—Advanced fixed growths and widespread implants.

Procedure Advised.—Laparotomy unless evidence of Stage IV. Stage I & II: Bilateral oöphorectomy and panhysterectomy followed by postoperative fractionated irradiation. Stage III & IV: Establish diagnosis by laparotomy, peritoneoscopy, biopsy through cul-de-sac or by examination of ascitic fluid. Fractionated irradiation to pelvis and abdomen.

Prognosis.—0 to 25 per cent five-year survivals depending on extent.

Cancer of the Stomach

Laparotomy to be considered in every case unless:

A. X-ray examination demonstrates too extensive involvement.

B. There is evidence of remote metastases.

C. Patient is in precarious general condition.

Procedure Advised.—Partial or total gastrectomy are the only procedures of value. In view of the otherwise hopeless prognosis, gastrectomy should be at-

tempted in every possible case. It is not wise to do a palliative gastro-enterostomy. X-ray therapy is of little or no value in cancer of the stomach. *Prognosis.*—Approximately 5 per cent five-year survivals.

Cancer of the Colon and Rectum

Procedure Advised.—Radical surgical excision is the only curative measure. Irradiation or cauterization may produce some palliative effect.

Cancer of the Prostate

Procedure Advised.—Prostatic resection, usually transurethral. Palliative x-ray irradiation to metastases when they occur.

Cutaneous Melanoma

Do not biopsy, electrodesiccate or apply caustics.

Do wide surgical excision of more than 1 cm. margin and down to the level of the deep fascia.

Cancer of the Vulva

Procedure Advised.—Radical vulvectomy and bilateral inguinal gland dissection. If this is not feasible, palliative fractionated irradiation.

Conclusion

The treatment of malignancy is a complex problem. The multiplicity of types of therapy advocated by the various authorities has resulted in confusion. The usual physician has difficulty in keeping abreast of the trends in cancer therapy. Herein is presented an outline for the treatment of the more common types of cancer. The therapy advocated will be modified at intervals as knowledge increases.

GERMANY'S PLIGHT

Discounting heavily as one must information of conditions abroad, there still remain impressive indications that the health of the German people is in a sorry plight. Beginning several years ago with the rigid regimentation in the service of the State there came expulsion for many of the most brilliant scientific minds. Then war. The demands of the armed services have removed so many German physicians from civilian practice that it is said that there remain about 8,000 to care for 9,000,000 civilians—29,000 physicians having been inducted into military service.

Medical service in Germany is steadily deteriorating. The once rigid laws controlling education have been modified to reduce the training period by 2 years and to legalize, without any form of examination, the activities of assorted quacks, faith healers, nature cultists, and the like.

So passes a once healthy, vigorous people into the realm of sickness, physical and mental. Generations to come must surely be marked with the folly of today. The lesson is obvious—regimentation, internecine strife, expulsion, war—and the people pay dearly for a gaudy bill of goods when the tinsel begins to tarnish.

Does America want any part of this tragic secuence? It isn't just coincidence that a free, untrammeled American system of medicine has, during the short life of this Republic, increased the life expectancy of its citizens from 35 years to 62 years!—*Southwestern Medicine, February, 1940.*

IN MEMORIAM

Richard R. Smith, of Grand Rapids, President of the Michigan State Medical Society in 1934, was born in 1869. At the age of twenty-three years he was graduated from the University of Michigan Medical School. He practiced Surgery in Grand Rapids and became a master. He was Past-Regent of the American College of Surgeons and a member of its Board of Governors at the time of his death. Organizer and Commander of Hospital Unit "Q", A.E.F., 1917-1919. Past Vice President of the American Gynecological Society; Past-President of Kent County and Michigan State Medical Society. Member of the University of Michigan Board of Regents, 1931 to 1938. Author of numerous articles dealing with surgical and gynecological problems.

Dr. Smith was a distinct product of Michigan, being born, working through the years and dying in his native State. His influence upon the scientific advancement of medicine and his adherence to the high ideals of his profession will be a beacon to all who knew him, especially the younger physicians who felt his personality. His death on May 7, 1940 is mourned by the entire medical profession of Michigan.

* * *

Paul W. Butz, Plymouth, Michigan, was born in Angola, Indiana, in 1900. He was graduated from Northwestern University Medical School in 1929. Dr. Butz practiced in Plymouth for ten years, where he was keenly interested in outdoor activities, having organized the Western Wayne County Conservation Association. He died in an accident near Au Gres on May 1, 1940.

* * *

A. J. D'Alleva, Detroit, Michigan, was born at Albion, New York, August 13, 1912. He was graduated from Wayne University College of Medicine in 1936. Following his graduation he served his internship at Harper Hospital and East Side General Hospital. He died April 19, 1940, after practicing in Detroit two years.

* * *

S. J. Drummond, Casnovia, Michigan, was born in Canada in 1866. He was graduated from Queen's College, Kingston, Ontario in 1897. Dr. Drummond was the only physician in Casnovia for more than forty years. He died April 28, 1940.

* * *

A. W. Karch, Monroe Michigan, was born in Frankfort, Illinois, in 1886. He attended the University of Illinois at Champaign, where he took his medical training. Dr. Karch died in Monroe Hospital, April 29, 1940.

* * *

John W. Page, Jackson, Michigan, was born in 1880. He was graduated from the University of Pittsburgh School of Medicine in 1914, following which he was made director of Health Education in the Oak Park, Illinois schools. In 1917 he became personnel officer as a member of the U. S. Army Medical Reserve Corps in Rome, N. Y. Dr. Page was associated with the Jackson Clinic and was interested primarily in pediatrics. He died August 20, 1939.

Woman's Auxiliary

A.M.A. Convention Bulletin for June

A Last Reminder to make your reservation for the 18th Annual Convention of the Woman's Auxiliary to the American Medical Association to be held at the Hotel Pennsylvania, New York City, June 10 to 14, 1940. New York has much to offer aside from the convention, and we are sure you will not want to miss the opportunity of visiting New York this year.

* * *

Bay County.—Twenty members of the Woman's Auxiliary of the Bay County Medical Society met for a dinner meeting at the Y.W.C.A. on Wednesday, April 10, 1940.

Mrs. W. R. Ballard, the new president, presided. The Auxiliary moved to assist financially in sending a delegate to the "Cause and Cure Convention" in Washington in January, 1941. A number of organizations are doing the same.

Dr. Otto Ehrlich, an interne in one of the local hospitals, spoke to us on the life and work of his uncle, Dr. Paul Ehrlich, noted scientist and discoverer of the drug salvarsan. Dr. Ehrlich received his medical training in Germany as did his uncle. He told us of receiving a lengthy letter from Edward G. Robinson, film star, who portrayed the part of his uncle, Dr. Paul Ehrlich, in the motion picture production, "Magic Bullet" which has just been released.

* * *

Genesee County.—The April meeting of the Woman's Auxiliary of the Genesee County Medical Society was held on Wednesday, April 24, at 12:30 p. m. at the Dresden Hotel. The luncheon was preceded by a board meeting at 11:00 o'clock at which time the new president, Mrs. J. H. Curtin announced her chairmen and committees and made known her plans for the coming year.

The hostesses for the luncheon were, Mrs. C. K. Stroup and Mrs. W. S. Williams. The program for the day was in charge of Mrs. Williams who presented Mrs. D. G. McCartney, local florist, speaking on Flowers and Arrangements.

Plans for a subscription Dinner Dance to be held on April 27 at the Flint Country Club were completed. Mrs. Lafon Jones is chairman assisted by a very able committee.

Mrs. D. L. Treat offered to open her home for the May meeting, a guest Tea on Wednesday, May 22. Mrs. Guy Briggs was chairman of hostesses for the day.

The Dinner Dance sponsored by the Auxiliary on Saturday, April 27 was attended by about 80 couples, members of the local group and was thoroughly enjoyed by everyone present. Following an excellent dinner, dancing to the tunes of Billy Geyer and his orchestra was enjoyed. Mrs. J. H. Curtin, president of the Auxiliary and Mrs. J. H. Rowley were hostesses for the occasion.

Officers for the coming year are as follows: President, Mrs. J. H. Curtin; Vice president, Mrs. W. B. Hubbard; Secretary, Mrs. K. R. Sandy; Treasurer, Mrs. T. S. Conover.

* * *

Jackson County.—The Auxiliary to the Jackson County Medical Society met with Mrs. J. C. Smith, Tuesday, April 16. The occasion was a dinner bridge. Jackson County Auxiliary is proud of the work being done by the Public Relations Committee with lay groups in the city against the Wagner Bill.

Kalamazoo County.—On the evening of April 18, thirty-four members and two guests enjoyed a cooperative dinner at the home of Mrs. Robert Armstrong. After a short business meeting, Mr. Wade Van Valkenburg presented a talk on "The Life of Gandhi." Assisting the hostess were Mrs. John Fopeano, Mrs. Martin Patmos, and Mrs. Homer Stryker.

* * *

Monroe County—The Woman's Auxiliary of the Monroe County Medical Society held a dinner meeting and election of officers at the Dinner Bell Tea Room on April 18.

The following officers were elected:

President, Mrs. Robert J. Williams; vice president, Mrs. Spencer Wagar; recording secretary, Mrs. C. J. Golinvaux; corresponding secretary, Mrs. James A. Humphrey; treasurer, Mrs. M. A. Hunter; press reporter, Mrs. Albert H. Reisig.

* * *

Oakland County.—A meeting of the Woman's Auxiliary of the Oakland County Medical Society was held Thursday, April 25, at the home of Mrs. Robert Baker. Mrs. L. G. Christian, State President and Mrs. H. L. French State Secretary, of Lansing, were present. The business meeting was followed by a discussion of the work and problems of the organization. Mrs. Christian led the discussion and made suggestions for a work program. A letter from the Oakland County Medical Society was read inviting the members of Auxiliary to a dinner meeting at Northwood Inn, May 1.

Tea was served at beautifully arranged tables to fifteen members and guests.

* * *

Saginaw County.—The Saginaw County Medical Auxiliary met at the home of Mrs. Oliver W. Lohr for the March meeting. Dr. L. Fernald Foster, secretary of the Michigan State Medical Society, discussed "Michigan Medical Service." Mrs. Robert Jaenichen, president, was in charge of the business meeting. Mrs. Lohr acted as program chairman.

Sixty couples were present at the Saginaw County Medical Auxiliary April meeting held at the home of Mrs. Robert F. Jaenichen. Bridge and a social hour were enjoyed. Members of the Medical Society joined the Auxiliary for refreshments later in the evening.

The next meeting was the annual luncheon and election of officers held May 21 at the home of Mrs. Lloyd C. Harvie.

* * *

Wayne County.—Mrs. H. Lee Simpson, an earnest supporter of the activities of the Young Artists' Market of Detroit spoke at the meeting on Friday, April 12. Mrs. George Van Rhee, Mrs. Martin Hoffmann, and Mrs. Raymond Goux were hostesses at the tea which followed the program.

On Monday, April 15, a well attended subscription dinner was held at the Wardell Hotel, honoring Dr. Haven Emerson of New York City. Dr. Emerson was the speaker at the joint meeting of the Auxiliary and Wayne County Medical Society which was held in the Detroit Institute of Art that evening. His subject was "An American Way to Health."

On Tuesday, April 30, a Salad Luncheon and Bridge Party was given by the Ways and Means Committee for the benefit of the Auxiliary's Student Loan Fund. It was held in the Auditorium of the Ernst Kern Company and was a most successful affair.

Ferguson-Droste-Ferguson Sanitarium

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Sanitarium Hotel Accommodations

Detroit Clinic and Alumni Reunion

of

Alumni Association of Wayne University College of Medicine

June 12-13, 1940

WEDNESDAY, JUNE 12

At College Auditorium on Mullet Street

9:00 A.M. Round Table on New Drugs and Vitamins.
10:30 A.M. Round Table on Preoperative and Postoperative Care.
12:00 Noon The Annual Meeting of the Alumni Association.
1:00 P.M. Round Table on Cardiorenal Diseases.
2:30 P.M. Round Table on Gastro-intestinal Diseases.
7:00 P.M. The Alumni Dinner. At the Recess Club, Fisher Building.

THURSDAY, JUNE 13

At College Auditorium on Mullet Street

9:00 A.M. Round Table on Fractures.
10:30 A.M. Round Table on Obstetrics and Infant Resuscitation.
1:30 P.M. Visit to Parke Davis Plant.
2:30 P.M. The Boat Ride.
7:00 P.M. Commencement (at Olympia).
Class Reunions.

MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

HONORS TO MICHIGAN

Seven Michigan health departments received awards in 1939 in the National Health Conservation Contest sponsored by the American Public Health Association and the United States Chamber of Commerce.

Highest honors went to Alger-Schoolcraft Health Department directed by Dr. E. J. Brenner which was awarded first place among rural health departments in the northeastern division. Six out of the ten awards for rural health departments in this division went to Michigan departments.

Michigan health departments receiving awards of merit in this division and the directors include: District Health Department No. 7 at Gladwin directed by Dr. E. V. Thiehoff; Chippewa County Health Department directed by Dr. Davis Littlejohn; District Health Department No. 2 at West Branch directed by Dr. Sue H. Thompson; Mecosta-Osceola Health Department directed by Dr. M. C. Igloe and acting director Dr. Clifton Hall; and Saginaw County Health Department directed by Dr. V. K. Volk.

The Grand Rapids Health Department also received an award of merit in the City Health Conservation Contest. While these awards do not necessarily go to the healthiest communities, they do indicate the competent manner in which these Michigan communities are meeting their health problems.

MEXICO BORROWS DR. KENDRICK

At the request of Dr. Jose Zozaya, head of the National Serum Institute of Mexico, arrangements have been completed for the organization of a pertussis control program in the Republic of Mexico under the direction of Dr. Pearl L. Kendrick, associate director of the Michigan Department of Health Laboratories.

Dr. Kendrick, who directed the long series of Michigan studies from 1934 to 1938 to check the effectiveness of pertussis vaccine, will be loaned this summer to the Mexican Government for a period of approximately six weeks. The National Serum Institute of Mexico will provide a vaccine similar to that being used in Michigan. Dr. Kendrick will direct a study for checking the effectiveness of this vaccine in controlling the virulent type of whooping cough prevalent in Mexico. It is hoped that the excellent results obtained in the Michigan study can be duplicated under the severe conditions prevalent in Mexico.

FIELD CONSULTANT SERVICE

A consultant staff of health specialists has been organized under the direction of the Bureau of Local Health Services for the purpose of making the services of the State Department more readily available to full time local health departments.

The consultant field staff will function under the direction of Dr. Carleton Dean, deputy commissioner. The personnel of the field staff will include public health administrators, specialists in maternal and child health and dental health, nursing consultants, communicable disease specialists, nutrition advisors, sanitary engineers, statisticians, industrial hygienists, and health educators. Services of this consultant staff may be obtained by local health officers upon request.

AUTO DEATHS INCREASE

Deaths caused by automobile accidents during the first quarter of 1940 were the highest since the record breaking year of 1937. First quarter deaths totalled 302 compared with 278 for the same period last year. In 1937, 453 deaths were caused by automobile accidents in the first quarter.

March automobile deaths were also the highest for that month since 1937. There were 111 deaths caused by automobiles compared with 96 last year, and 143 in 1937.

NEW OFFICE BUILDING

The State Health Department has been notified of the approval of a WPA allotment of $64,999 to start construction of a new office building. The grant, matched with $50,000 already appropriated by the state, will enable the Department to start construction of the new building July 1. Two floors of a proposed four-story building will be completed with the available funds. The new office building will be located on the northwest city limits of Lansing in conjunction with the Department's central laboratories.

RESORT INSPECTION

Preliminary arrangements have been made by the Bureau of Engineering for a complete and uniform sanitary inspection of Michigan summer resorts this year. The Bureau has sponsored a series of regional conferences with health officers and sanitarians as the first step in organizing a survey of health conditions throughout the entire resort area. Resort sanitary standards, inspection procedures and work programs have been outlined for local officials.

NEW REGULATIONS

Printed copies of the Department's 1940 revision of the Regulations for the Control of Communicable Diseases are available for all physicians. The Regulations may be obtained upon request to local health officers or to the State Department at Lansing.

DISTILLED WATER AVAILABLE

Physicians may obtain distilled water for the diluent of arsenical drugs from their local biologic distribution centers or from the State Department at Lansing. The distilled water is packaged in 10 c.c. vials.

VITAL STATISTICS FOR MICHIGAN

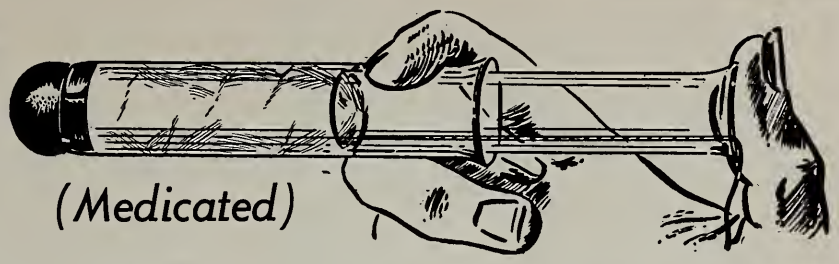
1938-1939

	Number		*Rate*	
	1939	1938	1939	1938
Total Births	94,432	96,962	18.52	19.01
Total Deaths	52,017	50,678	10.20	9.94
Infant Deaths	3,952	4,319	41.85	44.54
Maternal Deaths	280	345	2.97	3.56

ANN ARBOR HEALTH DEPARTMENT

The State Department has been notified that the city of Ann Arbor has established a full time health department. This will make twelve full time municipal health departments in Michigan. Approximately 75 per cent of Michigan's urban and rural population is now served by full time county, district and city health departments.

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It's just right-sized to carry in your pocket.

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National Association of Chewing Gum Manufacturers, Staten Island, New York

✶ COUNTY AND PERSONAL ACTIVITIES ✶

100 Per Cent Club for 1940

1. Allegan County Medical Society
2. Barry County Medical Society
3. Branch County Medical Society
4. Cass County Medical Society
5. Chippewa-Mackinac County Medical Society
6. Clinton
7. Delta-Schoolcraft
8. Gogebic
9. Huron-Sanilac
10. Ingham
11. Lenawee
12. Livingston
13. Luce
14. Macomb
15. Manistee
16. Mecosta-Osceola
17. Menominee
18. Midland
19. Muskegon
20. Newaygo
21. Oceana
22. O.M.C.O.R.O.
23. Ontonagon
24. Tuscola
25. Wexford-Kalkaska-Missaukee

The above Societies have each certified dues for 100 per cent of their physicians who were members in 1939. Fifteen other societies have three or fewer unpaid members!

President B. R. Corbus addressed the Grand Rapids Exchange Club on April 29 on the subject of "Problems of Adequate Distribution of Medical Care."

* * *

L. G. Christian, M.D., and Ralph Wadley, M.D., Lansing were guest speakers at the Gratiot-Isabella-Clare County Medical Society meeting in Alma on May 23rd. The subject under discussion was "Peptic Ulcer."

* * *

L. Fernald Foster, M.D., Bay City, Secretary of the Michigan State Medical Society, announces the association of Howard T. Knobloch, M.D., in his practice, beginning June 1, 1940.

* * *

The American College of Chest Physicians will hold its Sixth Annual Meeting at the Biltmore Hotel, New York City, June 8 to 10, inclusive, which is just prior to the 1940 AMA Convention.

* * *

The Washtenaw County Medical Society recently passed a resolution endorsing the National Physicians Committee. Each member of the Society was urged to contribute to the Committee as liberally as they feel possible.

* * *

Michigan authors in recent issues of *The Journal of the American Medical Association* include H. V. Hendricks, M.D., Kalkaska, Michigan, whose article "Poisoning by False Morel" appeared in the issue of April 27, 1940; and Harvey M. Andre, M.D., Battle Creek and Clarence H. Snyder, M.D., of Grand Rapids whose article entitled "Fixation of Fracture with Metal Plate: An Unusual Case" appeared in the May 4th issue.

The Rhode Island Legislature passed a Basic Science Law at the 1940 session, which was signed by the Governor on April 27. This culminated fifteen years of effort on the part of the medical profession, particularly the members of the Providence Medical Association and their Executive Secretary, John E. Farrell.

* * *

Requests for reprints of articles printed in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY come from all parts of the United States and in fact, the world. Latest is from A. Vander Sarr, M.D., an internist in Curacao, N.W.I. (Look up your map. It's now in the news.)

* * *

The Dickinson-Iron County Medical Society is fortunate in that its active Secretary, E. B. Andersen, M.D., sends each member a bulletin keeping them advised of all the latest events of interest to the medical profession in the community. No words are wasted —just the facts which are read.

* * *

Increase in Doctors.—During the past year, 6,043 licensed physicians were added to the U. S. Medical Roster, according to the American Medical Association. Inasmuch as the number of physicians removed from the roster by death approximates 4,000 annually, the net increase in the medical profession of the United States in 1939 was about 2,000.

* * *

The Jefferson Medical College Alumni Association will hold its Reunion Banquet on Wednesday, June 12 at 7:00 p. m. at the Murray Hill Hotel, Park Avenue at 40th Street, during the AMA Convention in New York City. For reservations address Thomas F. Duhigg, M.D., Chairman, Dinner Committee, c/o Murray Hill Hotel.

* * *

The American Congress of Physical Therapy will hold its 19th Annual scientific and clinical session at the Hotel Statler, Cleveland, Ohio, September 2-6, 1940. The convention will be open to physicians and qualified technicians. For further information and preliminary program write the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

* * *

The Providence Hospital Interne Alumni Association sponsored its Annual Spring Clinic held in the Martha Higgins Auditorium on May 16th. Speakers included Paul Cusick, M.D., of Rochester, Minnesota; and Harry L. Alexander, M.D., of St. Louis, Missouri. Golf was enjoyed in the afternoon, followed by a banquet in the evening. Officers of the association are President, Fred Honhart, M.D., President-Elect Meshel Rice, M.D., and Secretary-Treasurer, Edward Draves, M.D.

* * *

A Pan-American Congress of Ophthalmology sponsored by the American Academy of Ophthalmology and Otolaryngology will be held October 11 and 12, 1940, at the Hotel Cleveland, Cleveland, Ohio, just following the annual convention of the A.A.O.O. The governments of all the counties of the Western Hemisphere have been invited to send official delegates. Arrangments are being made so that papers given in Spanish or Portuguese will be interpreted to the English; and the English papers to Spanish and Portuguese. The Congress is open to all physicians in the United States. There is a small registration fee.

The Diamond Anniversary of the Michigan State Medical Society, to be held in Detroit, Wednesday, Thursday, and Friday, September 25, 26, 27, 1940, will feature a number of extraordinary events.

The Presidents' Dinner, at which all fourteen past presidents of the Society will be honor guests, will be held in the Ballroom of the Book-Cadillac Hotel, Wednesday, September 25, at 7:00 p. m. All members of the Michigan State Medical Society and their ladies are invited to this, the main social event of the 75th Annual Convention.

A Smoker, for MSMS members only, will be held on Thursday, September 26th at 9:00 p. m. in the Ballroom of the Book-Cadillac Hotel. A complimentary admission card will be mailed to each member of the State Society on September 1.

Another feature of the Diamond Jubilee will be the "Upper Peninsula Reunion Dinner" arranged for all physicians who are practicing, or have practiced, or who feel that they should practice in the Upper Peninsula—and their ladies. This gala event will be held Thursday, September 26, 1940, English Room of the Book-Cadillac Hotel, 6:30 p. m. W. H. Huron, M.D., of Iron Mountain is Chairman of Arrangements. Councilor A. H. Miller of Gladstone will be Toastmaster. Past, present and future Upper Peninsula physicians are invited! For details, write Dr. Huron, Iron Mountain Michigan.

Baseball fans will be glad to know that the Detroit Tigers will be playing in Detroit during part of the week. On Friday, Saturday and Sunday, September 20, 21 and 22, Cleveland will play Detroit; on Tuesday and Wednesday, September 24 and 25, Chicago will be entertained at Briggs Stadium.

The Out-Patient Department of The Grace Hospital, Detroit, will sponsor a camp for diabetic children from July 1st to July 14th, at Camp Frisbee, near Waterford, Michigan. Any physician caring for a diabetic child may refer his patient to the Camp and his orders for treatment will be carried out. Physicians and nurses will be on duty twenty-four hours a day at the Camp. Rates: $12.50 per week, no charge for underprivileged children. For registration or further information call Mrs. Anna Nickels, Columbia 5800 or write in care of The Grace Hospital.

* * *

A new precedent in Ohio: In a recent malpractice case in Cincinnati, the Court of Appeals reversed a decision of the lower court, the effect of which is to make *physicians* in Ohio responsible for every drug, anesthetic or other medication used on their patients in a hospital. If this decision stands, then each physician must personally analyze and pass on the content and character of all medications used on his patients during the patient's stay in the hospital. To correct this situation, it is necessary to get the case before the Supreme Court of Ohio for a hearing. To do this, support from the organized medical profession in Ohio is required in making clear to the Court the importance of this case from the standpoint of the public interest, since the Ohio Supreme Court will not hear a case unless convinced of its wide public importance. The Council of the Ohio State Medical Association has been called upon to employ counsel for the purpose of presenting a well-prepared brief on this subject and asking the Court to hear it.



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American Board of Obstetrics and Gynecology Examinations

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire Board, meeting in Atlantic City, N. J., on June 8, 9, 10, and 11, 1940. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, Pa.

"*Correction*—Through an unfortunate error, the name of Thelma Freeman, M.D., Detroit, was omitted from the Membership Roster published in the May issue of THE JOURNAL. Doctor Freeman is a member in good standing and we are sorry the error occurred."

* * *

The regular meeting of the *Michigan Pathological Society* was held at Woman's Hospital, Detroit, Michigan, April 13, 1940. About forty were in attendance. Dr. W. L. Brosius, President, presided. The afternoon session included exhibition of Pathological material. At the evening session, cases were presented and discussed.

The next meeting will be held at the Michigan Department of Health and Sparrow Hospital in Lansing, Michigan on May 25, 1940.

D. C. BEAVER, M.D.
Secretary

* * *

Doctor, remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten more of the firms which helped make the 1939 Convention such a great success:

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E. J. Rose Manufacturing Company, Inc., Detroit
S.M.A. Corporation, Chicago
W. B. Saunders Company, Philadelphia
Schering Corporation, Bloomfield, New Jersey
Scientific Sugars Company, Columbus, Indiana
Sharpe & Dohme, Philadelphia
Smith, Kline & French Laboratories, Philadelphia
C. M. Sorensen Company, Inc., Long Island City, New York
Frederick Stearns & Company, Detroit

* * *

Hospitalization of Afflicted Adults.—The State Department of Social Welfare, in a memorandum dated April 29, 1940, invited the attention of county social welfare directors and board members to the Afflicted Adult Act (Act 304 of the Public Acts of 1939), which states that whenever there is found in a county an "indigent adult legal resident" who is afflicted with malady, etc. and whose residence is found by the county department of social welfare to be in the county in which he happens to be living, said "indigent adult legal resident" may be hospitalized by the county department of social welfare for treatment at the expense of the county from which he is sent.

"Legal residence" has been interpreted to mean the place in which a person lives as a permanent home. If the person needs hospitalization as an indigent, it may be so ordered, not at the expense of the county of his legal settlement, but at the expense of the county in which he has his permanent home, or "legal residence."

* * *

De Nike Sanitarium

A recent change has been made in the DeNike Sanitarium advertisement which has been appearing in THE JOURNAL for the past five years. This was for the purpose of announcing to the medical profession the establishment of ward facilities. The special ward, on the third floor of the Sanitarium is exceptionally well equipped and will make possible the Sanitarium services to persons of moderate income. Inquiries are invited from the Superintendent, A. James DeNike, M.D.

ALUMNI CLINIC AND REUNION

The Annual Clinic and Reunion of the Alumni Association of Wayne University College of Medicine will be held Wednesday and Thursday, June 12 and 13, in the College Auditorium on Mullett Street, Detroit. The program follows:

Wednesday

9:00 A.M. Round Table on New Drugs and Vitamins.
Arthur Smith, M.D., Hazen Price, M.D., J. M. Orten, M.D., Fredrick Yonkman, M.D., Arnold Lehman, M.D., Douglas Donald, M.D.

10:30 A.M. Round Table on Pre-operative and Postoperative Care.
Alexander W. Blain, M.D., C. S. Kennedy, M.D., Louis Morand, M.D., C. D. Brooks, M.D., R. J. Noer, M.D., Ray Andries, M.D.

1:00 P.M. Round Table on Cardio-Renal Diseases.
Edgar Norris, M.D., Walter Wilson, Sr., M.D., Frank Weiser, M.D., E. D. Spalding, M.D., M. R. McQuiggan, M.D., R. L. Novy, M.D.

2:30 P.M. Round Table on Gastro-intestinal Diseases.
C. E. Vreeland, M.D., Richard Connelly, M.D., Bruce Lockwood, M.D., C. F. Vale, M.D., J. Kenner Bell, M.D., George Zindler, M.D.

Thursday

9:00 A.M. Round Table on Fractures.
A. D. LaFerte, M.D., Frank Curtis, M.D., Charles Peabody, M.D., Angus Goetz, M.D., A. H. Whittaker, M.D., Fredrick Fisher, M.D.

10:30 A.M. Round Table on Obstetrics and Infant Resuscitation.
Harold Henderson, M.D., Harry Pearse, M.D., Russell Alles, M.D., Milton Darling, M.D., W. B. Mitchell, M.D., Roger Siddall, M.D.

Under social events, the Alumni Dinner will be held at the Recess Club in the Fisher Building, Wednesday at 7:00 P. M. Thursday afternoon will be featured by a visit to the Parke-Davis Company's plant, followed by a boat-ride on the Detroit River and Lake St. Clair.

All members of the MSMS are invited to the Clinics and Reunion.

Wayne University College of Medicine Commencement will be held at Olympia at 7:00 P. M.

Appearances—L. Fernald Foster, M.D., Secretary of the Michigan State Medical Society has made the following recent appearances: April 9—Lincoln Republican Club, Bay City; April 11, Huron-Sanilac County Medical Society, Bad Axe; April 17, Dedication of new Alpena General Hospital, Alpena; May 7, Vassar Rotary Club, Vassar; May 8th, Woman's Club, Haslett. In addition Doctor Foster appeared at Lenawee, St. Joseph-Cass and Alpena County Medical Societies on "State Society Nights" in May.

Wm. J. Burns, Executive Secretary, spoke to the following groups during the past few weeks: April 20, Radio talk over Station WKAR, Michigan State College, East Lansing; April 24, Board of Directors of Michigan Lumber Dealers Association, Lansing; April 30, Clinton County Medical Society, St. Johns; May 8, Ionia Rotary and Lions Clubs, Ionia; May 12th, Michigan Chiropody Association, Grand Rapids; May 14, Ingham County Branch of American Association of

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA, PA.

Social Workers, East Lansing; May 15, Michigan Homeopathic Society, Lansing; June 5, Lions Club, Howell. Mr. Burns also attended the "State Society Nights" at Lenawee and St. Joseph-Cass Counties in May.

* * *

Governor Lehman of New York recently vetoed the Goldberg bill which provided for a system of compulsory health insurance. In Governor Lehman's veto message he acknowledges the enormous difference between compulsory health insurance and unemployment insurance. The later exists to alleviate the economic distress enforced idleness imposes, the facts of which are more or less clear-cut. Governor Lehman explains, "The control and investigation of claims for such benefits would require differently trained personnel. The whole organizational structure of the Division of Placement and Unemployment Insurance would have to be changed. . ." So, the move to foist compulsory health insurance upon the State of New York through subterfuge failed.

* * *

The *Van Buren County Medical Society* held a Clinical Conference at Eagle Lake Hotel near Decatur, Michigan, on May 9, 1940, at 10:00 A. M. Dr. Arthur C. Curtis, Department of Internal Medicine of the University Hospital, Ann Arbor, Michigan, presented the Clinical Conference. The topics being "Peptic Ulcers" and "Cardiac Disease."

On May 14, 1940, the May meeting of the Van Buren County Medical Society was held at Holly's Restaurant in South Haven, Michigan at 6:30 P. M. Drs. G. T. Aitkin, Dr. Fred P. Currier, and Dr. W. J. Butler, all of Grand Rapids, presented a symposium on "Low Back Pain." This subject was discussed from the orthopedic, neurological, and genito-urinary standpoints.

"State Society Night" programs were held during the month of May as follows:

At *Lenawee County,* Adrian, on May 21. Officers of the MSMS who were present included Henry R. Carstens, M.D., A. S. Brunk, M.D., of Detroit; H. H. Cummings, M.D., Ann Arbor; P. R. Urmston, M.D., and L. Fernald Foster, M.D., Bay City, and Wm. J. Burns of Lansing.

At the *St. Joseph County* meeting on May 22, the following officers of the MSMS were present: B. R. Corbus, M.D., Grand Rapids; Wilfred Haughey, M.D., Battle Creek; R. J. Hubbell, M.D., Kalamazoo; L. Fernald Foster, M.D., Bay City; and Wm. J. Burns, Lansing.

The *Alpena County Medical Society* held its meeting on May 29 at Onaway with the following MSMS officers in attendance: P. R. Urmston, M.D., L. Fernald Foster, M.D., and R. C. Perkins, M.D., Bay City; Henry R. Carstens, M.D., Detroit and E. F. Sladek, M.D., Traverse City.

At *Kalamazoo,* on May 21, Wilfred Haughey, M.D., Battle Creek, and Mr. J. D. Laux of Detroit, spoke on "Michigan Medical Service."

* * *

Among the M.D.s from Michigan who will have a place in the Scientific Exhibit at the A.M.A. Convention in New York are: F. W. Hartman, Roy D. McClure, J. G. Schnedorf and Victor Schelling of Henry Ford Hospital, Detroit; Ruth M. Latham of Detroit; Alvin E. Price, Arthur W. Frisch, Jack Rom, Gordon B. Myers and Charles E. Lemmon of Receiving Hospital, Detroit; Charles G. Johnston, James M. Winfield and J. Logan Irvin of Wayne University College of Medicine, Detroit; Reuben L. Kahn of Ann Arbor; A. E. Schiller of Detroit; E. S. Gurdjian of Detroit; N. F. Miller and Allan C. Barnes of University Hospital, Ann Arbor; Icie Macy-Hoobler of Detroit; David J. Sandweiss, M. H. F. Friedman, H. C. Saltz-

stein and A. A. Farbman of Detroit; Joseph C. Gemeroy, of Henry Ford Hospital, Detroit; and Alson E. Braley of Detroit.

Taking part in the special exhibits are George J. Curry, Flint; G. C. Penberthy, James M. Winfield and Daniel M. Stiefel of Detroit.

Appearing on the meeting program are R. D. McClure, Detroit; Reed M. Nesbit and Rigdon K. Ratliff, Ann Arbor; Carl E. Badgley, Ann Arbor; Ward Seeley, Detroit; Bruce Fralick, Ann Arbor; Parker Heath, Detroit; Alson Braley, Detroit; V. C. Johnson, Ann Arbor; Jerome W. Conn, Ann Arbor; F. W. Hartman, Detroit; Russell N. DeJong, Ann Arbor; Max M. Peet, Ann Arbor; Lowell S. Selling, Detroit; Hira E. Branch, Detroit, and John G. Mateer, Detroit.

* * *

SUPPLEMENTARY ROSTER

Berrien County

Brown, R. J. ..... Benton Harbor
Eidson, Hazel ..... Berrien Springs
Ellet, W. C. ..... Benton Harbor
Herring, N. A. ..... Niles
Ingleright, L. R. ..... Niles
King, Frank, Jr. ..... Benton Harbor
Pritchard, H. M. ..... Niles
Waterson, R. S. ..... Niles

Delta-Schoolcraft

Forrester, C. ..... Garden

Eaton County

McLaughlin, C. L. D. ..... Vermontville

Grand Traverse—Leelanau—Benzie

Clements, E. W. ..... Interlochen
Covey, E. L. ..... Honor
Murphy, Fred ..... Cedar
Rennell, E. J. ..... Traverse City
Sheets, R. Philip ..... Traverse City
Weitz, Harry ..... Traverse City
Willard, Wm. G. ..... Benzonia

Gratiot-Isabella-Clare

Baskerville, C. M. ..... Mt. Pleasant
Rottschafer, J. L. ..... Alma

Houghton-Baraga-Keweenaw

Sarvela, H. L. ..... Hancock

Ionia-Montcalm Counties

Hay, John R. ..... Saranac

Jackson County

Myers, J. H. ..... Jackson

Kalamazoo County

Hobbs, E. J. ..... Galesburg
Light, S. R. ..... Kalamazoo
Pullon, A. E. ..... Kalamazoo
Snyder, R. F. ..... Kalamazoo
Van Ness, J. H. ..... Allegan
Paine, Raymond Lee ..... Ishpeming

Kent County

Blackburn, H. M. ..... Grand Rapids
Byers, Earl ..... Grand Rapids
Houghton, G. A. ..... Caledonia
Moleski, Leo ..... Grand Rapids
Smith, Edwin M. ..... Grand Rapids

Marquette—Alger Counties

Bottum, Charles W. ..... Marquette
Burke, R. A. ..... Ishpeming
Hartt, P. P. ..... Ishpeming
Howe, L. W. ..... Marquette
Witters, Josef ..... Gwinn

Monroe County

Williamson, George W. ..... Dundee

St. Joseph County

Porter, C. G. ..... Centerville

Saginaw County

Markey, Joseph P. ..... Saginaw
Ryan, R. S. ..... Saginaw
Sargent, D. V. ..... Saginaw

Wayne County

Abramson, Max ..... Detroit
Barone, Charles J. ..... Highland Park
Berge, Clarence A. ..... Detroit
Bogusz, Ladislaus ..... Eloise
Buchner, Harold W. ..... Detroit
Budson, Daniel ..... Detroit
Byers, Dudley Wm. ..... Detroit
Cameron, A. H. ..... Wyandotte
Cole, W. C. C. ..... Detroit



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Dietzel, H. O.	Detroit
Donald, Douglas	Detroit
Donovan, Daniel R.	Detroit
Donovan, John D.	Detroit
Dunlap, Samson F.	Detroit
Fenech, Harold	Detroit
Freeman, Thelma	Detroit
Hamilton, Thomas S.	Detroit
Hand, F. V.	Detroit
Hartman, F. W.	Detroit
Henderson, Harold	Detroit
Hodoski, Frank J.	Detroit
Hulse, Warren L.	Highland Park
Israel, J. G.	Detroit
Jaffe, Jacob	Detroit
John, H. R.	Detroit
Jones, L. Faunt	Detroit
Kliger, David	Detroit
Knapp, Floyd B.	Detroit
Kuhn, Richard F.	Detroit
Kurtz, I. J.	Detroit
Levin, Michael M.	Detroit
Levitt, Edward J.	Detroit
Lipinski, Stanley L.	Detroit
Mair, Harold U.	Detroit
McDonald, Peter W.	Wyandotte
Mintz, Edward I.	Detroit
Morse, Plinn F.	Detroit
Novy, R. L.	Detroit
O'Donnell, Wm. S.	Detroit
Phillips, Fred W.	River Rouge
Pink, Rose M.	Detroit
Piper, Clark C.	Detroit
Robbins, Edward R.	Detroit
Rosenzweig, Saul	Detroit
Runge, Edward F.	Detroit
Ruskin, Samuel F.	Eloise
Sandweiss, David J.	Detroit
Stocker, Harry	Detroit
Sugar, David I.	Detroit
Trinity, Granville J.	Detroit
Ulch, Howard W.	Detroit
Wilson, Frederic S.	Detroit
Wittenberg, Samson S.	Detroit
Zukowski, Sigmund A.	Detroit

* * *

COUNTY MEDICAL SOCIETY MEETINGS

Bay County—April 24, Bay City. Speaker: Oliver Lohr, M.D., Saginaw. May 8, Bay City: Speaker, George J. Curry, M.D., Flint.

Berrien County—May 1, Bridgman. Subject: "Pneumococcic Pneumonia."

Calhoun County—May 7, Battle Creek. Speaker: John F. Renshaw, M.D., Cleveland, O.

Dickinson-Iron—May 2, Iron Mountain. Program by Dickinson-Iron Committee on Maternal Health.

Ingham County—April 16, Lansing. Speaker: Andrew H. Dowdy, M.D., Rochester, N. Y. May 2 was the date of the Annual Spring Clinic of the Ingham County Medical Society held in Lansing. There were 190 physicians registered, 86 of whom were from outside of Ingham County.

Ionia-Montcalm County—May 14, Ionia. Speaker: J. T. Bradbury, M.D., Ann Arbor.

Kent County—May 14, Grand Rapids. Speaker: B. R. Kirklin, M.D., Rochester, Minn. May 22, members of the Kent County Medical Society were guests of the Medical Arts Pharmacy of Grand Rapids for a "Roman Holiday" incorporating a trip to Detroit, the Yankee-Tiger baseball game, a tour of Parke-Davis, and a banquet.

Oakland County—May 15, Buffalo, New York. The Oakland County Medical Society invited the Macomb County Medical Society to join it in its annual trip to Buffalo, New York, for its Annual Spring Clinic, Millard Fillmore Hospital.

St. Clair County—April 23, Port Huron. Speaker: E. S. Gurdjian, M.D., Detroit. May 14, Port Huron. Speaker: J. Milton Robb, M.D., Detroit.

Shiawassee County—May 16, Owosso. Subject: "County Health Unit."

Washtenaw County—May 14, Ann Arbor. Speaker: Frederick A. Coller, M.D., Ann Arbor.

Wayne County—May 6, Detroit. Speaker: H. H. Kessler, M.D., Newark, N. J. May 13, Detroit. Speaker: John F. Renshaw, M.D., Cleveland, Ohio. May 20, Detroit. Annual Meeting; Election of Officers.

COUNCIL AND COMMITTEE MEETINGS

1. Thursday, March 28—Cancer Committee—Porter Hotel, Lansing—6:30 p.m.
2. Saturday, April 13—Industrial Health Committee—Hotel Statler—Detroit—6:30 p.m.
3. Wednesday, April 17—Special Committee on Interne Training—Ann Arbor—5:00 p.m.
4. Thursday, April 18—Executive Committee of The Council—Hotel Statler, Detroit—3 p.m.
5. Thursday, April 18—Committee on Distribution of Medical Care—Hotel Statler, Detroit—6:00 p.m.
6. Sunday, April 28—Syphilis Control Committee—Hotel Olds, Lansing—3:00 p.m.
7. Tuesday, May 7—Maternal Health Committee—Hotel Statler, Detroit—12:15 p.m.
8. Thursday, May 9—Cancer Committee—Michigan League, Ann Arbor—6:30 p.m.
9. Wednesday, May 15—Committee on Distribution of Medical Care—Hotel Statler, Detroit—4:30 p.m.
10. Thursday, May 16—Executive Committee of The Council—Wardell Hotel, Detroit—3 p.m.
11. Tuesday, May 21—Iodized Salt Committee—Wardell Hotel, Detroit—12:15 p.m.

* * *

CREDIT IS DUE

The following physicians registered at the 1939 Grand Rapids Convention on Monday, September 18:

A. D. Aldrich, Houghton; F. T. Andrews, Bay City; A. L. Arnold, Jr., Owosso.

Louis J. Bailey, Detroit; W. D. Barrett, Detroit; W. E. Barstow, St. Louis; Gaylord S. Bates, Detroit; Otto O. Beck, Birmingham; Myron G. Becker, Edmore; H. M. Best, Lapeer; Andrew P. Biddle, Detroit; T. P. Bishop, Grand Rapids; Fred C. Brace, Grand Rapids; D. R. Brasie, Flint; I. W. Brown, Kalamazoo; A. S. Brunk, Detroit; C. F. Brunk, Detroit; O. R. Buesing, Grand Rapids; E. T. Brunson, Ganges.

A. L. Callery, Port Huron; Don B. Cameron, Grand Rapids; Luther C. Carpenter, Jr., Grand Rapids; Henry R. Carstens, Detroit; A. E. Catherwood, Detroit; A. W. Chase, Adrian; Harrison S. Collisi, Grand Rapids; Henry Cook, Flint; Warren B. Cooksey, Detroit; Burton R. Corbus, Grand Rapids; H. H. Cummings, Ann Arbor.

Ernest D'Alcorn, Muskegon; Ernest W. Dales; Luther W. Day, Jonesville; T. E. DeGurse, Marine City; J. H. Dempster, Detroit; Joe De Pree, Grand Rapids; C. F. DeVries, Lansing; Harry F. Dibble, Detroit; Douglas Donald, Detroit; F. M. Doyle, Kalamazoo; Chas. E. Dutchess, Detroit.

Wm. C. Ellet, Benton Harbor; Paul H. Engle, Olivet.

Edw. O. Foss, Muskegon; L. Fernald Foster, Bay City; Robert H. Fraser, Battle Creek; Guy H. Frace, St. Johns; Robert A. Freyling, Grand Rapids; Ralph H. Gilbert, Grand Rapids; S. E. Gould, Detroit; Irving W. Greene, Owosso; T. K. Gruber, Eloise.

A. T. Hafford, Albion; Harvey C. Hansen, Battle Creek; Robert B. Harkness, Hastings; L. C. Harvie, Saginaw; C. K. Hasley, Detroit; Wilfrid Haughey, Battle Creek; John E. Hauser, Detroit; Leslie T. Henderson, Detroit; Louis J. Hirschmann, Detroit; H. B. Hoffman, Ludington; Martin H. Hoffmann, Eloise; T. E. Hoffman, Vassar; J. W. Holcomb, Grand Rapids; Roy Herbert Holmes, Muskegon; Harry G. Huntington, Howell; W. H. Huron, Iron Mountain; Wm. A. Hyland, Grand Rapids.

R. C. Jamieson, Detroit; L. J. Johnson, Ann Arbor.

Joseph A. Kasper, Detroit; C. R. Keyport, Grayling; Paul W. Kniskern, Grand Rapids; Harold J. Kullman, Detroit.

Alfred LaBine, Houghton; P. L. Ledwidge, Detroit; W. A. LeMire, Escanaba; C. E. Lemen, Traverse City; E. M. Libby, Iron River; S. L. Loupee, Dowagiac; Henry A. Luce, Detroit.

G. L. McClellan, Detroit; Allen McDonald, Detroit; J. Earl McIntyre, Lansing; Richard M. McKean, Detroit; John Hunter McRae, Grand Rapids; H. F. Mattson, Hillsdale; F. C. Mayne, Cheboygan; E. H. Meisel, Midland; C. M. Mercer, Battle Creek; W. F. Mertaugh, Sault Ste. Marie; A. H. Miller, Gladstone; B. J. Montgomery, Sault Ste. Marie; Vernor M. Moore, Grand Rapids; Dean W. Myers, Ann Arbor.

Albert Noordewier, Grand Rapids; R. L. Novy, Detroit; Albertus Nyland, Grand Rapids.

C. W. Oakes, Harbor Beach; E. A. Oakes, Manistee; Richard E. Olsen, Pontiac; J. J. O'Meara, Jackson.

G. C. Penberthy, Detroit; Ralph H. Pino, Detroit; R. C. Perkins, Bay City; H. E. Perry, Newberry; K. C. Pierce, Dowagiac; H. W. Plaggemeyer, Detroit; Lunette Powers, Muskegon.

Torrance Reed, Grand Rapids; F. E. Reeder, Flint; L. P. Rennell, Detroit; Wm. S. Reveno, Detroit; A. D. Riker, Pontiac; Philip A. Riley, Jackson; J. M. Robb, Detroit; Mortimer E. Roberts, Grand Rapids; Hugh Robins, Marshall.

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FRACTURES & TRAUMATIC SURGERY—Ten Day Intensive Course starting September 23rd. Informal Course every week.
GYNECOLOGY—Two Weeks Intensive Course starting October 7th. Four Weeks Personal Course starting August 26th.
OBSTETRICS—Two Weeks Intensive Course starting October 21st. Informal Course every week.
OTOLARYNGOLOGY—Two Weeks Intensive Course starting September 9th. Informal and Personal Courses every week.
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nominee; L. W. Shaffer, Detroit; George A. Sherman, Pontiac; E. F. Sladek, Traverse City; Ferris Smith, Grand Rapids; W. Joe Smith, Cadillac; Carl F. Snapp, Grand Rapids; G. Howard Southwick, Grand Rapids; Edward Spalding, Detroit; R. A. Springer, Centerville; Wm. J. Stapleton, Jr., Detroit; A. E. Stickley, Coopersville; Charles G. Stimson, Eaton Rapids; Oscar D. Stryker, Fremont; Geo. C. Stucky, Charlotte.

Archibald Thompson, Grand Rapids; Athol B. Thompson, Grand Rapids; Wm. R. Torgerson, Grand Rapids; Clarence E. Toshach, Saginaw.

C. E. Umphrey, Detroit; P. R. Urmston, Bay City.

C. K. Valade, Detroit; C. Fremont Vale, Detroit; Harvard J. Van Belois, Grand Rapids; Vivian H. Vandeventer, Ishpeming.

R. L. Wade, Coldwater; W. H. Welch, Lansing; A. V. Wenger, Grand Rapids; J. A. Wessinger, Ann Arbor; J. M. Whalen, Grand Rapids; R. R. Whitten, Ionia; D. Bruce Wiley, Utica; Harold W. Wiley, Lansing; E. R. Witwer, Detroit; M. G. Wood, Hart; Wm. P. Woodworth, Detroit.

I. V. Yale, Sault Ste. Marie; Gordon H. Yeo, Big Rapids; Wm. R. Young, Lawton.

The above list represents the registration for Monday, September 18, 1939. The list of those who registered later in the week will be published in succeeding issues of THE JOURNAL.

Certificates of Associate Fellowship in Postgraduate Education were presented to the following members of the Michigan State Medical Society at the 74th Annual Convention of the Michigan State Medical Society, September 21, 1939. Certificates are awarded to physicians having completed certain specified postgraduate medical education sponsored by the Committee on Postgraduate Medical Education of the Michigan State Medical Society.

Herman F. Albrecht, M.D., Detroit; Retla H. Alter, M.D., Jackson; Florence D. Ames, M.D., Monroe; Karl A. Anderson, M.D., Charlotte; Justus J. Austin, M.D., Tawas City.

Frederick A. Baker, M.D., Pontiac; Joseph A. Bakst, M.D., Detroit; Clarence H. Barber, M.D., Grand Rapids; Harry A. Barbour, M.D., Mayville; Francis W. Bartholic, M.D., Grass Lake; Walter M. Bartlett, M.D., Benton Harbor; William C. Behen, M.D., Lansing; Lawrence A. Berg, M.D., Centerville; Jerome F. Berry, M.D., Kalamazoo; Gilbert C. Bishop, M.D., Almont; Dirk C. Bloemendaal, M.D., Zeeland; Frank A. Boet, M.D., Grand Rapids; Alvin T. Bonathan M.D., Flint; Cornelius E. Boone, M.D., Zeeland; Philip P. Bonifer, M.D., Battle Creek; Merlin H. Bowers, M.D., Hillsdale; Charles E. Boys, M.D., Kalamazoo; Donald R. Brasie, M.D., Flint; Friedrich P. Brender, M.D., Frankenmuth; George W. Brooks, M.D., Tustin; James S. Brotherhood, M.D., Grand Rapids; Jay J. Brownson, M.D., Kingsley; Oscar H. Bruegel, M.D., East Lansing; Henry J. Burrell, M.D., Benton Harbor; Arthur H. Burleson, M.D., Olivet; Jacob H. Burley, M.D., Port Huron; Max R. Burnell, M.D., Flint; Benjamin B. Bushong, M.D., Traverse City.

William J. Cameron, M.D., Lansing; Alice F. Campbell, M.D., Albion; Melvin E. Chandler, M.D., Flint; Leo F. Chess, M.D., Reed City; Guy M. Claflin, M.D., Deerfield; Corwin S. Clarke, M.D., Jackson; Wilbert T. Claxton, M.D., Britton; Myron W. Clift, M.D., Flint; Raymond R. Cook, M.D., Akron; Harrison S. Collisi, M.D., Grand Rapids; Clifford W. Colwell, M.D., Flint; Thomas H. Cooper, M.D., Port Huron; Burton R. Corbus, M.D., Grand Rapids; Ennis H. Corley, M.D., Jackson; Keith D. Coulter, M.D., Gladwin; Michael E. Cuncannan, M.D., Grand Rapids; James E. Curlett, M.D., Roseville; John H. Curtin, M.D., Flint; George J. Curry, M.D., Flint.

Dean C. Denman, M.D., Monroe; Harold G. DeVries, M.D., Holland; Kenneth W. Dick, M.D., Imlay City; Harold T. Donahue, M.D., Cass City; Robert S. Drews, M.D., Detroit; Fred J. Drolett, M.D., Lansing; Lawrence A. Drolett, M.D., Lansing; Fred H. Drummond, M.D., Kawkawlin; Cornelius E. Dunn, M.D., Detroit; Ruel N. Dunnington, M.D., Benton Harbor; Lloyd S. Dunkin, M.D., Greenville; Francis W. Dwyer, M.D., Detroit.

Andrew C. Edgerton, M.D., Clio; Nina Maynard Ely, M.D., Bay City; Arthur R. Ernst, M.D., Saginaw; Esther L. Eymer, M.D., Saginaw.

John F. Failing, M.D., Grand Rapids; Ward S. Ferguson, M.D., Grand Rapids; Ralph G. Ferris, M.D., Birmingham; Samuel A. Fiegel, M.D., Sturgis; Wells B. Fillinger, M.D., Ovid; Theodore Finkelstein, M.D., Flint; Thomas E. Fleschner, M.D., Birch Run; Southard T. Flynn, M.D., Flint; Harold M. Fox, M.D., Portland.

Darrel B. Galerneau, M.D., Van Dyke; Frank W. Garber, Jr., M.D., Muskegon; Harold H. Gay, M.D., Midland; Stephen M. Gelenger, M.D., Flint; Benjamin T. Goodfellow, M.D., Flint; George R. Goering, M.D., Flint; Hugh W. Graham, M.D., Mount Morris; Charles L. Grant, M.D., Manistee; Charles A. Groomes, M.D., Bay City; Joseph C. Grosjean, M.D., Bay City; Solomon C. Grossman, M.D., Detroit; Frank J. Gugino, M.D., Reese; Isadore H. Gutow, M.D., Flint.

Ralph Hager, M.D., Manton; Marinus H. Hamelink, M.D., Hamilton; Theron W. Hammond, M.D., Grand Rapids; Earl A. Hasty, M.D., Whittemore; James E. Hawkins, M.D., Flint; Charles W. Heald, M.D., Battle Creek; William Heard, M.D., Pentwater; Philip M. Henderson, M.D., Albion; Henning V. Hendricks, M.D., Kalkaska; Colonel R. Henry, M.D., Ferndale; Eustace G. Hester, M.D., Saginaw; Glenn C. Hicks, M.D., Jackson; Joseph L. Hoernschemeyer, M.D., Jackson; Awra A. Hoyt, M.D., Battle Creek; Wilbur F. Hoyt, M.D., Paw Paw; Edward S. Huckins, M.D., Bay City; Clare C. Huggett, M.D., Lansing; Henry F. Hughes, M.D., Cambria; Harry G. Huntington, M.D., Howell; Franklin P. Husted, M.D., Bay City.

Harold M. Imerman, M.D., Saginaw; Harry L. Imus, M.D., Ionia; John F. Itzen, M.D., South Haven.

John B. Jackson, M.D., Kalamazoo; Frank D. Johnson, M.D., Flint; James H. Johnson, M.D., Hillsdale; Euclide V. Joinville, M.D., Detroit.

Louis L. Kazdan, M.D., Detroit; Guy C. Keller, M.D., Hastings; Thomas R. Kemmer, M.D., Grand Rapids; Paul W. Kniskern, M.D., Grand Rapids; Harriet A. Knott, M.D., Saginaw; Henry P. Kooistra, M.D., Grand Rapids.

Napoleon F. LaFrance, M.D., Battle Creek; John S. Lambie, M.D., Pontiac; Lawrence A. LaPorte, M.D., Gladwin; Louis S. Leipsitz, M.D., Detroit; David Lerner, M.D., AuGres; Elmore F. Lewis, M.D., Jackson; Lee A. Lewis, M.D., Manistee; Roy C. Lintner, M.D., Ionia; Edwin G. Low, M.D., Bangor; Frederick E. Luger, M.D., Saginaw.

Delbert M. MacGregor, M.D., Flint; John R. MacGregor, M.D., Kalamazoo; Harlen H. MacMullen, M.D., Manistee; Fred W. McAfee, M.D., Detroit; Stewart C. McArthur, M.D., Mt. Pleasant; John H. McEwan, M.D., Bay City; Oscar W. McKenna, M.D., Flint; Clyde L. D. McLaughlin, M.D., Vermontville; Fraley F. McMillan, M.D., Charlevoix; Rush McNair, M.D., Kalamazoo; Michael J. Medvesky, M.D., Bay City; Harold A. Miller, M.D., Lansing; Harry C. Miller, M.D., Hillsdale; J. Duane Miller, M.D., Grand Rapids; John J. Miller, M.D., Marne; Samuel L. Miller, M.D., Cheboygan; Frederick B. Miner, M.D., Flint; Sair C. Moore, M.D., Cadillac; Keith Morris, M.D., Saginaw; Robert J. Morrow, M.D., Lansing; Michael R. Murphy, M.D., Cadillac.

Ward H. Norconk, M.D., Bear Lake; Peter B. Northouse, M.D., Grandville; William Northup, M.D., Grand Rapids.

Daniel J. O'Brien, M.D., Lapeer; Constantine Oden, M.D., Muskegon; Kenneth L. Olmsted, M.D., Coldwater; Mark F. Osterlin, M.D., Traverse City; Bergein M. Overholt, M.D., Battle Creek; Arthur E. Owen, M.D., Lansing; Charles J. Ozeran, M.D., Benton Harbor.

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Susanne M. Sanderson, M.D., Detroit; Joseph N. Scher, M.D., Mt. Clemens; Benton A. Schiff, M.D., Flint; Theophile E. Schmidt, M.D., Jackson; Paul G. Schrier, M.D., Kalamazoo; Royston E. Scrafford, M.D., Bay City; Lowell S. Selling, M.D., Detroit; Clinton J. Sevener, M.D., Charlotte; Lester G. Sevener, M.D., Charlotte; George W. Slagle, M.D., Battle Creek; Eugene C. Smith, M.D., Flint; William A. Smith, M.D., Petersburg; Bouton F. Sowers, M.D., Benton Harbor; Irene L. Sparling, M.D., Northville; Clarence V. Spawr, M.D., Benton Harbor; James A. Spencer, M.D., Flint; Arthur A. Spoor, M.D., Muskegon; Andrew G. Stanka, M.D., Grand Ledge; William J. Stapleton, Jr., M.D., Detroit; Duncan C. Stephens, M.D., Howell; Robert A. Stephenson, M.D., Flint; Oscar D. Stryker, M.D., Fremont; Kenneth Stuart, M.D., Bay City; Ewald C. Swanson, M.D., Vassar; Charles M. Swantek, M.D., Bay City.

Clyde S. Tarter, M.D., Bay City; Leonard F. Thalner, M.D., Jackson; J. Orville Thomas, M.D., North Branch; Athol B. Thompson, M.D., Grand Rapids; Edwin L. Thirlby, M.D., Traverse City; Kenneth W. Toothaker, M.D., Lansing; Lawrence C. Towne, M.D., Lansing; Roy DuBois Tupper, M.D., Detroit.

Paul R. Urmston, M.D., Bay City.

Bert Van Ark, M.D., Eaton Rapids; Edwin Vander Berg, M.D., Holland; Jacob A. Van Loo, M.D., Belding; John D. Van Schoick, M.D., Hanover; Willard R. Vaughan, M.D., Plainwell.

William H. Wacek, M.D., Ironwood; Frank A. Ware, M.D., Flint; Dorothy F. Wheeler, M.D., Saginaw; Joseph B. Whinery, M.D., Grand Rapids; George W. Williamson, M.D., Dundee; Nina C. Wilkerson, M.D., Sturgis; Walter H. Winchester, M.D., Flint; Rollin C. Winslow, M.D., Battle Creek; Garrett E. Winter, M.D., Grand Rapids; Ernst A. Wittwer, M.D., Bay City; John F. Wixted, M.D., Chesaning; George H. Wood, M.D., Luther; George R. Wright, M.D., Montrose.

Gordon H. Yeo, M.D., Big Rapids.

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DETROIT OPHTHALMOLOGICAL SOCIETY

On January 30, 1940 at the headquarters of the Wayne County Medical Society a new Ophthalmological Society for Detroit and vicinity was formed. Its purpose is the Study and Advancement of Ophthalmology.

The development of opportunity for continuous educational advancement must remain one of the primary objectives of the Wayne County Medical Society for worthy members of the medical profession in this area. Gradually the teaching personnel and extensive materials in Wayne County are shaping to that end.

In this new ophthalmological organization is created an opportunity to partake and contribute to ophthalmological knowledge by all doctors of medicine who do eye work in this area and whose standards of practice are acceptable.

It is fitting that the first president of the organization should be the head of The Department of Ophthalmology of Wayne University College of Medicine—Parker Heath, M.D. Preparation to pass the American Board of Ophthalmology is an excellent way to systematically lay foundations for practice in ophthalmology, and it is the hope of Dr. Heath that in addition to ultimately developing his department at the College for undergraduates to the position of second to none, that he may develop the Graduate Department by serving the profession with full courses in preparation for the American Board.

It is expected that the associate members will avail themselves of the educational opportunities planned by the Society, thus qualifying if possible to become active members by passing the American Board on or before the expiration of the five-year period.

There will be five classes of membership as follows:

1. Active members to be elected from those who, in addition to being members of their county societies, have been certified by the American Board of Ophthalmology or have practiced medicine many years. After 1940 only those who have passed the American Board will be eligible to actual membership.

2. The associate members shall be those members of the County Medical Societies who in the opinion of the Committee on Ethics and Admission shall have completed the necessary preparations for ophthalmic practice but have not been certified by the American Board of Ophthalmology. Associate membership terminates after a period of five years unless otherwise voted by three-fourths of the members of the Society in session.

3. The honorary members shall be those who have rendered exceptional service to the Society or who are outstanding because of their scientific achievements.

4. Life members. Any member who for a period of twenty-five years has paid such assessments as may have been levied by the Society or who has attained the age of sixty-five years shall, upon his own application and by the consent of the Committee on Ethics and Admission, become a Life Member.

5. Special members shall consist of those practicing specialties, teachers, or research workers closely allied with ophthalmology.

It is fitting that Drs. Don M. Campbell and Walter R. Parker by unanimous consent are made Honorary Presidents of this organization. Dr. Campbell for forty years and Dr. Parker for twenty-seven years were the professors of ophthalmology of Wayne University and of the University of Michigan, respectively, and continue in active practice. In the basic principles of all our organizations it is an important tenet to remember that the foundations for the good things enjoyed today were laid by others:

The officers of The Detroit Ophthalmological Society are:

President—Parker Heath, M.D.

President-Elect—Ralph H. Pino, M.D.

Secretary—Leland F. Carter, M.D.

Treasurer—Cecil W. Lepard, M.D.

Recorder—Edmond L. Cooper, M.D.

Chairman of Executive Committee—Don M. Campbell, M.D.

Chairman of Ethics and Admissions Committee—Howell L. Begle, M.D.

Chairman of Program Committee—Elmer L. Whitney, M.D.

Chairman of Committee on Revisions of By-Laws—Raymond S. Goux, M.D.—*Detroit Medical News, February 19, 1940.*

The Doctors' Protest—"Refusal of the doctors of forty-one of Michigan's eighty-three counties to accept the fees the State offers for treatment of indigent patients does not seem to be making much difference at the moment. The doctors are still furnishing the service free, and so long as they continue those needing it will have no cause to complain.

"The governor's office is reported as thinking well of the situation. Emerson R. Boyles, Mr. Dickinson's mouthpiece and adviser, has expressed his approval with the added remarks that the money on hand will go farther among those who insist on payment.

"He also said the work is worth more than the state allows, and he would recommend it if the money was available.

"All of which directs attention to the unreasonableness of a policy pursued by public officials nearly everywhere from time to time. The only answer they know seems to be cut the remuneration of workers whenever economy becomes necessary. Highly placed public servants evidently are convinced that those who live by salaries or fees should always be forced to carry the entire burden. Anyway, the under-paid clerks and such professional people as the state employs are the goats.

"The doctors in this case are being shabbily treated. The business amounts to little to them individually, however. The ones who will suffer most in the long run are the needy sick. Even the doctors who are willing to treat them knowing they will get nothing for their work can hardly be expected to be as attentive as they might. Neither will the indigent be so ready to summon them, even in extreme cases.

"The governor would do well to consult his pipe line and try to find a remedy."—*Bay City Times,* April 29, 1940.

* * *

COUNTY SOCIETY OFFICERS

Allegan County

President—C. A. Dickinson, M.D.....Wayland
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Secretary-Treasurer—H. R. Mooi, M.D...Union City

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation of those sending them. A selection will be made for review, as expedient.

THE MANAGEMENT OF OBSTETRIC DIFFICULTIES. By Paul Titus, M.D., Obstetrician and Gynecologist to The St. Margaret Memorial Hospital, Pittsburgh; Consulting Obstetrician and Gynecologist to the Pittsburgh City Homes and Hospital, Mayview, and to The Homestead Hospital, Homestead, Pa.; Secretary of The American Board of Obstetrics and Gynecology. With 368 Illustrations and 5 Color Plates. Second Edition. St. Louis, The C. V. Mosby Company, 1940. Price: $10.00.

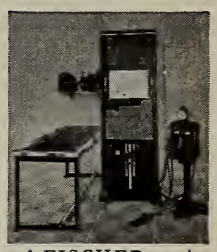
The first edition of this book was well received as a source of practical advice regarding various obstetrical difficulties and Titus has added, in addition to other modernizing changes, a very fine section on the relief of sterility. The author emphasizes the fact that he is expressing his own preference in undecided issues which gives a decidedly personal touch to the book somewhat akin to being able to have Dr. Titus' personal advice when trouble comes in an obstetrical case.

COMPENDIUM OF REGIONAL DIAGNOSIS IN LESIONS OF THE BRAIN AND SPINAL CORD. A Concise Introduction of the Principles of Localization of Diseases and Injuries of the Nervous System. By Robert Bing, Professor of Neurology, University of Basel, Switzerland. Translated and edited by Webb Haymaker, Assistant Clinical Professor of Neurology and Lecturer in Neuro-Anatomy, University of California. Eleventh Edition. With 125 Illustrations, 27 in Color, and 7 plates. St. Louis, The C. V. Mosby Company, 1940. Price: $5.00.

The first edition of Regional Diagnosis by Bing came out in 1909. It was immediately accepted as a standard piece of literature. The succeeding editions have been favorably accepted. That a book can go into eleven editions for over a period of thirty years is sufficient recommendation of the worth. In these days of brain and nerve injuries from auto accidents and from industry, it is very important that a correct diagnosis be made early if possible. The volume will be found of inestimable value to the general practitioner as well as to the internist and neurologist.

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ARTHRITIS, AND ALLIED CONDITIONS. By Bernard I. Comroe, A.B., M.D., F.A.C.P., Instructor in Medicine, University of Pennsylvania; Ward Physician, Hospital of the University of Pennsylvania. Illustrated with 200 engravings. Philadelphia, Lea and Febiger, 1940. Price $8.50.

This volume presents, in both outline and detailed form, the methods of diagnosis of the various types of joint disease, probabilities of partial or complete recovery, and a regimen of treatment. It is so complete that it is practically encyclopædic in scope. The author has emphasized, particularly, methods of diagnosis and treatment which are available to the general practitioner, but in his endeavor to completely cover the subject he has taken away some of its value to the physician in the field. The use of page headings and the allocation of some of the cuts creates some confusion in easy reference.

MINOR SURGERY. By Fredrick Christopher, S.D., M.D., F.A.C.S., Associate Professor of Surgery at the Northwestern University Medical School, Chicago; Chief Surgeon at the Evanston (Ill.) Hospital. With a Foreword by Allen B. Kanavel, M.D., F.A.C.S. Fourth Edition, Reset. With 639 Illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price: $10.00.

This is the book about which Allen B. Kanavel said, "Dr. Christopher—has presented in an adequate form the details of the diagnosis and treatment of truly minor surgery. His book is no mere compilation of previous texts; it sources his wide experience not only in this but in general surgery, and from this experience he has chosen wisely and emphasized well." It is a really complete discussion and its many diagrams and illustrations make it a very valuable reference book. The splendid chapter entitled, "The Surgical Intern," gives some very fine suggestions and detailed instructions for the after treatment of major surgery.

INTRODUCTION TO MEDICINE. By Don S. Sutton, M.S., M.D., Associate Professor of Medicine, Northwestern University School of Medicine; Attending Physician, Medical Division of the Cook County Hospital; Chief of the Cardiac Clinic, Cook ounty Hospital, Chicago; Attending Physician, Evanston Hospital. With Introduction by Ada Belle McCleery, R.N., Superintendent, Evanston Hospital, Evanston, Illinois. With 144 Test Illustrations and 14 Color Plates. St. Louis, The C. V. Mosby Company, 1940. Price: $3.25.

This volume on medicine, as adapted to the needs of the nurse, provides a simple but efficient explanation of many of the phenomena of disease, with the main emphasis upon nursing treatment and care rather than medical therapy. Some well conceived questions are appended to each chapter to emphasize to the student nurse the essential points to be remembered on each subject.

THE COMPLEAT PEDIATRICIAN. Practical, Diagnostic, Therapeutic and Preventive Pediatrics. Third Edition. For the use of Medical Students, Internes, General Practitioners, and Pediatrists. By Wilburt C. Davison, M.A., D.Sc., M.D., Professor of Pediatrics, Duke University School of Medicine, and Pediatrist, Duke Hospital; Formerly Acting Head of Department of Pediatrics, The Johns Hopkins Hospital; and Member American Board of Pediatrics; Fellow American Academy of Pediatrics and American College of Physicians; and Member American Pediatric Society. Durham, N. C., Printed by Seeman Printery for Duke University Press, 1940. Price: $3.75.

This is the third edition of this compendium of pediatric knowledge. Because of the accumulation of additional pediatric information during the past three years ten thousand lines have had to be changed. An astounding amount of material is condensed in an orderly fashion. It is splendidly indexed for quick reference making this volume a "world almanac" of pediatrics.

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Gastric and Duodenal Ulcer

Some Observations on Management*

By I. S. Ravdin, M.D.
Philadelphia, Pennsylvania



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■ Of the common organic lesions of the abdominal viscera none has given rise to such speculation from the standpoint of etiology, and none has been associated with such varied treatment, as have gastric and duodenal ulcers. I prefer to designate them in regard to their anatomic location rather than to call them collectively peptic ulcers, for although the two lesions may have a somewhat similar etiologic basis they are dissimilar in the frequency of their common complications.

It is not as yet definitely proven that gastric ulcer and duodenal ulcer are similar diseases for the etiology of these processes is as yet unknown and a careful analysis of existing data indicates that the so-called precipitating factors may be in reality factors of secondary importance.

It is a well known fact that gastric and duodenal ulcers both in man and the experimental animal tend to heal and that they tend to recur. While both lesions are characterized by periodicity in symptoms the duodenal ulcer shows this more strikingly than does the gastric ulcer. A gastric ulcer may begin as a malignant ulcer or a benign ulceration may become malignant. The ulcerations of the greater curvature of the stomach are nearly always carcinomatous. On the other hand, primary duodenal carcinoma, or carcinoma secondary to duodenal ulcer is an extremely rare lesion. Duodenal ulcer is more prone to hemorrhage and perforation.

In spite of these differences evidence which we have been collecting leads us to suspect that the chronic benign ulcerations of the stomach and duodenum may have a similar nutritional background. The ease with which such ulcerations are produced in the experimental animal by one or another method of bile diversion suggests that under such circumstances there may result a failure in absorption of certain fat-soluble accessory foodstuffs which, under normal conditions of nutrition, protect the gastroduodenal mucosa. The reports on the effectiveness of bile acid therapy in correcting the erosions of the mucosa in certain experimental animals[1] and man,[2] and the work of Kohler, Randle, Elvejehem and Hart[6] on a stomach ulcer factor in grass juice, are suggestive that a nutritional basis for certain of the gastric and duodenal ulcerations does exist.

While the problem of etiology and the best method for medical treatment may still be in doubt, the indications for surgical therapy are becoming clearer. There is as yet no unanimity of opinion as to the exact operation best suited for the various conditions that are met, and there may, of course, never be, but the conditions requiring immediate surgical therapy without recourse to medical treatment are generally agreed upon.

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I shall discuss, in the main, the methods which we are using in the problems that come to us.

Roentgen Studies

No one entrusted with the care of ulcer patients should attempt treatment without the aid of a competent roentgenologist. The location of the ulcer, its extent, and the response to therapy must be determined by carefully controlled fluoroscopic and skiagraphic studies. As far as possible all fluoroscopic studies on a given patient should be made by the same individual and under the same circumstances. Figures 1 and 2 demonstrate what will happen when the barium meal is slightly altered in composition. In Figure 1 a simple water-barium meal which we believe should be the standard meal, was used and the gastric emptying time was one hour and thirty-five minutes. In Figure 2 a small amount of fat as chocolate was added to the meal and the gastric emptying time in the same patient was over six hours. Data obtained following variations in the barium meal may give rise to the conclusion that cicatricial stenosis is occurring or that the condition is improving when in reality the retention or more rapid emptying is due to the addition or exclusion of some foodstuff in the barium meal.

The mere fact that what appeared to be a very large ulcer becomes much smaller after a few days treatment is not always an indication that healing is taking place.

Contraction of the muscularis mucosa as was shown by Forssell[3] will greatly increase the apparent size of an ulcer as is shown in Figure 3. After a few days of adequate therapy the contraction of the muscularis mucosa subsides and the actual size of the ulcer is demonstrated (Fig. 4). It is because of findings such as these that the diagnosis of malignancy on the basis of size of the ulcer is not always safe, nor is it safe to conclude that rapid healing of what appeared to be a large ulcer has taken place.

Indications for Operation in Gastric and Duodenal Ulcer

All ulcers of the greater curvature of the stomach should be considered malignant and the patient subjected to a subtotal gastrectomy as soon as possible. Ulcers proximal to the gastric incisure are as a rule benign. Prepyloric and posterior wall ulcers of the stomach should be considered malignant until proven otherwise. The patients with either of the latter lesions should immediately be put on an adequate medical regimen, and if, after three to five weeks there has been no change in the roentgenologic findings, or if the ulcer has increased in size, he should be operated on.

If the ulcer shows signs of healing, as demonstrated by size, filling defect, and mobility of the wall, medical treatment can be continued. The patient should, however, be subjected to monthly roentgenologic studies and if, at any time during treatment, the ulcer shows signs of increasing in size, or in depth of penetration, operation should be advised.

When surgery becomes advisable for the gastric ulcer we believe that a radical subtotal gastrectomy is the operation of choice. Continuity of the gastro-intestinal tract may be reëstablished by one of a number of methods. I agree in general with Roscoe Graham[4] when he says "all operations for a gastric ulcer other than partial gastrectomy have so frequently been followed by sequellæ, that . . . unless the ulcer can be removed, the patient is better without operation."

Perforation

The first and most important indication for operation in ulcer is perforation. The sooner operation is performed following perforation the lower the mortality. The diagnosis must depend upon the history, physical examination and the roentgenologic findings. When x-ray studies are made the patient should be x-rayed in the anterior-posterior prone position with the table tilted and in the lateral horizontal position. A clear history, and positive physical signs of perforation should lead to exploration even in the absence of air under the diaphragm by x-ray studies (Figs. 5 and 6). It must also be remembered that the best time to demonstrate free air under the diaphragm is shortly after perforation has taken place. As the time from perforation to x-ray study increases absorption of the air occurs and its demonstration becomes more difficult.

Operation

The first and most important consideration in perforation is saving the life of the patient. This objective, we believe, is best secured by simple closure of the ulcer and reinforcing the suture line with an omental graft. The performance of a gastro-enterostomy or a partial gastrectomy in the presence of even a chemical peritonitis is not based upon sound surgical judgment. While perforation does not lead to the healing of all ulcers, it does to some.

If suction drainage of the stomach is established immediately after operation, the edema surrounding the perforation soon disappears and gastro-intestinal continuity is reëstablished. Resection, if necessary, should be done at a time when the patient is in a better condition to stand it. The lowest mortality is to be found in the hands of those surgeons who treat perforation by conservative surgical procedures.

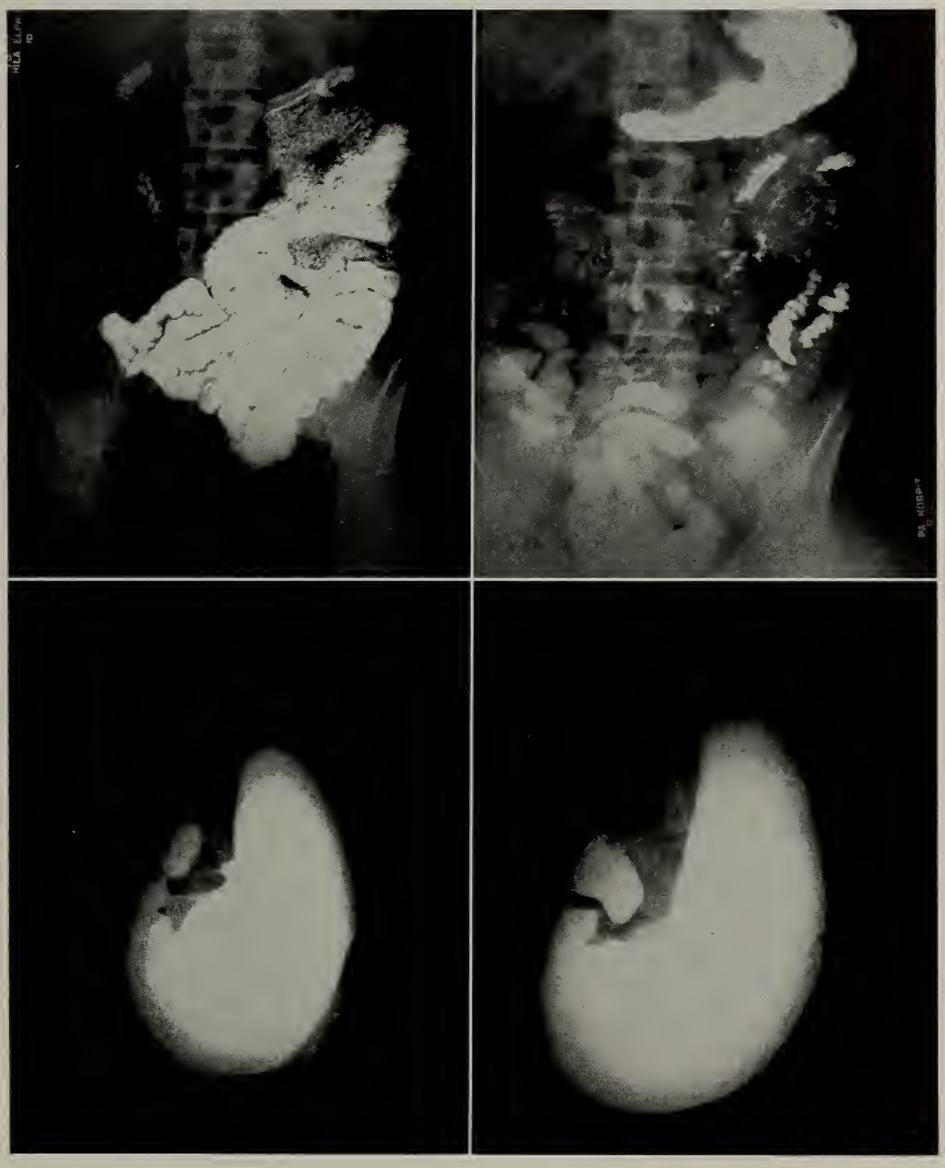


Fig. 1 *(upper left)*. Water-barium meal. Stomach emptied in one hour and thirty-five minutes.
Fig. 2 *(upper right)*. Water-barium meal plus small amount of fat. Stomach emptied in over six hours.
Fig. 3 *(lower left)*. Gastric ulcer before treatment. Contraction of muscularis mucosa.
Fig. 4 *(lower right)*. Gastric ulcer after few days' treatment. Contraction of muscularis mucosa subsided.

Hemorrhage

While the indications for operation in a penetrating, perforating or perforated ulcer are clear, the indications for operation in the

presence of hemorrhage are not so clear and there is a wide diversity of opinion regarding the best procedure should operation be decided upon.

There is no doubt that the lowest reported mortality in bleeding ulcer has been reported by Meulengracht[8,9] but one who has observed a number of patients with massive, rapidly exsanguinating hemorrhages cannot help but feel that a medical regimen is not the answer to hemorrhage of all types and from all locations.

From the standpoint of diagnosis it is fortunate that the majority of the hemorrhages we are called upon to treat occur from duodenal ulcers. It is, however, not sufficient to know whether the lesion is in the duodenum. We have for instance never seen an exsanguinating fatal hemorrhage in an anterior duodenal ulcer. The large continuing hemorrhages nearly always occur from posterior duodenal ulcers (Fig. 7).

The position of the ulcer, the age of the patient, the history of previous hemorrhage, and the condition of the patient are factors which should be considered in deciding wether medical or surgical treatment, or a combination of the two, should be carried out in an individual patient.

Treatment

In young patients with only moderate hemorrhage we have in the last few years followed the plan of Meulengracht[8,9] and fed them. Our experience with this method has been highly satisfactory. The first hemorrhage in a patient under fifty is rarely fatal. If the ulcer is not on the posterior wall of the duodenum the patient may not have another hemorrhage. In patients past fifty, the hemorrhage, even from anterior wall ulcers, may prove much more serious and the indications for early operation are clearer. It is generally accepted that recurrence of the hemorrhage increases the mortality from this complication, but we have seen a number of patients who have had from five to seven hemorrhages before coming to operation and who have then done well. We believe, however, that recurrent hemorrhage should be considered an indication for operation even though the hemorrhages may not have been severe.

In the most extensive hemorrhages we begin a slow continuous drip transfusion as soon as possible after admission to the hospital. If the patient continues to lose ground during a period of from twelve to eighteen hours operation had best be done without delay. The two main reasons for the high mortality following operation for massive hemorrhage have been delay in operation and failure to ligate the blood supply to the ulcer base.

Whether the operation is done as an emergency or after cessation of the hemorrhage and partial recovery from the anemia, a radical operation should be performed. The results in our hospital following conservative operations such as gastro-enterostomy or attempted ligation of vessels supplying the ulcer base have been 26 per cent. The radical gastrectomy and duodenectomy recommended by Roscoe Graham[4] is, we believe, the method of choice. Properly planned and executed, and with transfusions during and after operation, the risk is much less than that we have had in the past, and it is surprising to observe how well these patients do.

The important thing is that in desperately ill patients operation should not be delayed too long, and that once decided upon nothing short of a radical operation should be attempted.

Pyloric Obstruction

Evidence of pyloric obstruction either from a gastric or duodenal ulcer is not uncommon. Frequently the obstruction is not due to cicatricial stenosis but is associated with spasm or edema or both. When the obstruction is the result of pyloric spasm it is relieved, in whole or in part, by the administration of spasmolytic agents. When due to edema with or without co-incidental spasm the differential diagnosis, even with the aid of competent roentgenologic study, may be difficult. The existence of a low plasma protein is suggestive that the obstruction is due at least in part to edema. If so the institution of suction drainage which puts the stomach at rest and the administration of several plasma transfusions which will tend to restore a depleted plasma protein will result after a few days in definite evidence of a functioning pylorus.

Diet.—The chronically obstructed ulcer patient is frequently malnourished. This is often due in part to the rigid diet which medical practitioners

have previously imposed on these patients; in part to a restriction in food intake by the patient because of pain; and in part to the vomiting of food ingested. Thus, many of the obstructed patients come for relief with obvious evidences of dehydration and salt loss and within recent years this deficit has been corrected by the administration of fluid and salt by parenteral routes.

It should have been equally obvious to us that these patients may also have deficits in various vitamins, especially vitamin C and B complex; that they may have had a serious depletion of the plasma protein; and that the glycogen stores of the body may be at the zero point. The preparation of these patients prior to operation is, therefore, of the greatest importance if morbidity and mortality are to be kept as low as possible.

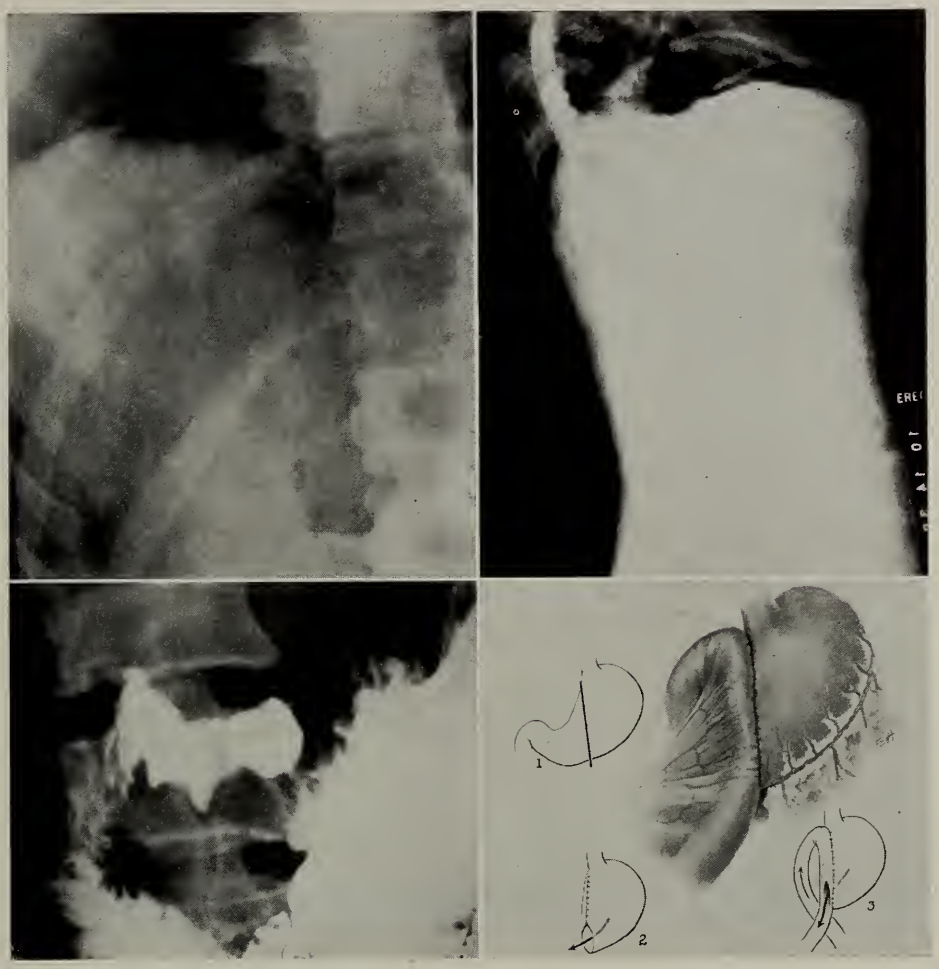


Fig. 5 *(upper left)*. Perforation duodenal ulcer. Air under diaphragm. Anterior view.
Fig. 6 *(upper right)*. Perforation duodenal ulcer. Air under diaphragm. Lateral view.
Fig. 7 *(lower left)*. Duodenal ulcer—posterior wall. This is the type of ulcer which frequently gives rise to hemorrhage.
Fig. 8 *(lower right)*. Radical gastrectomy for intractable duodenal ulcer.

Once the nutritional condition of the patient has been brought to as satisfactory a state as is possible, operation should be carried out. In the benign cicatricial stenoses the gastric acid concentration is nearly always low and any operation which provides an adequate stoma for gastric emptying will be associated with excellent end-results. In these cases we frequently have done a posterior gastro-enterostomy and have never had any evidence that this procedure in the presence of pyloric stenosis was followed at any time by a marginal or jejunal ulcer.

Benign cicatricial stenosis of the pylorus is, I believe, the major indication for a posterior gastro-enterostomy. In only one other group of ulcer patients do we use this operation. In the patient past sixty years who has had ulcer

symptoms for a number of years, and in whom at operation there is no evidence of malignancy but the ulcer has "kissed" into the liver or contiguous structures, posterior gastro-enterostomy provides relief with minimal risk.

Intractability to Medical Treatment

While perforation, hemorrhage, obstruction, and suggestive evidence of malignancy, are in our opinion the major indications for surgical intervention, there are those who believe that failure to obtain evidence of healing after what has been supposed to be a period of adequate diet is also an indication for operation. We are not so sure of this and have within recent years operated only on those intractable ulcers where pain and discomfort interfered with the patient's ability to work.

Diet helps in the treatment if food is kept in the stomach at all times, thus to a degree taking care of the increased acid secretion. I venture to suggest that one reason why the Sippy diet has proven so efficacious is that food is constantly kept in the stomach by the frequent administration of milk and cream and also because the high content of fat in the cream greatly retards the rate of gastric emptying. If food is kept in the stomach alkalies are not necessary in the routine medical management of these patients.

There are, however, other factors, some of which are known and some of which may not be, which must be taken into consideration during any medical program. Smoking must be stopped, mental stress and strain must be relieved, and every attempt must be made to provide a dietary program which can at least correct any deficit of the known accessory foodstuffs.

In the persistent benign ulcers of the lesser curvature, and in the intractable posterior wall ulcers of the duodenum, especially in the presence of a high gastric acid concentration, operation will frequently have to be done, but when it is posterior gastro-enterostomy is not the procedure of choice (Fig. 8). If a radical gastrectomy is not contemplated the patient had best be continued on a medical regimen. Posterior gastrojejunostomy is not to be done merely because the patient refuses, or fails to live within the careful requirements of a well constituted conservative program. A more widespread realization of this will result in a reduction of the number of marginal and jejunal ulcers, and gastrojejuno-colic fistulæ that come to every surgical clinic.

Some Factors Concerned with Pre-operative and Postoperative Care

I have reviewed what we consider the important indications for operation in gastric and duodenal ulcer and have in general indicated the type of procedure we have found best suited for each condition requiring operation. While a correctly selected procedure and a skillfully done operation will do much to reduce morbidity and mortality the pre- and postoperative care of ulcer patients is of the greatest importance. In perforation and hemorrhage any extensive period of preparation may prove fatal, but in obstruction and intractability, a period of preparation will markedly reduce morbidity and mortality regardless of the operation which is done.

Many of these patients come for aid, as I have already intimated, after long periods of undernutrition. They are frequently dehydrated from vomiting and fluid restriction. They are deficient in a number of the vitamins, especially the B complex and C, and there is present in many of them a deficiency in the glycogen stores of the body and more important the plasma protein and the labile protein stores.

In patients with evidence of complete or incomplete pyloric obstruction we at once institute suction drainage after the method of Wangensteen and Paine.[12] Nothing assists so much in overcoming the edema surrounding the obstruction as putting the stomach at rest by keeping it empty. The fluid and salt balance are restored by the intravenous administration of a normal sodium chloride solution. If there are evidences of a hypoproteinemia, before or after the administration of the saline solution, blood transfusions or transfusions of plasma or serum are given. The simplest and most rapid means of restoring a depleted plasma protein is by giving normal plasma or serum intravenously. If the patient is anemic transfusions of whole blood are exceedingly useful.

Lanman and Ingalls[7] have shown that a vitamin C deficiency may be a potent factor in wound healing and Thompson, Ravdin, Rhoads and Frank[10,11] have shown that wound healing

is greatly retarded in the presence of hypoproteinemia. Thus, two factors are now known which play an important rôle in the wound disruptions which are not infrequent in patients operated on for gastric lesions.

A vitamin B deficiency results in marked gastric atony and a deficiency of all or part of the B complex is nearly always present in ulcer patients with large atonic stomachs, especially when the dilatation is unassociated with pyloric obstruction. The observations of Heublein, Thompson and Scully[5] point strongly to the fact that the administration of B_1 alone in B complex deficient dogs does not lead to a complete return to normal gastric tone. We have, however, given patients whom we have suspected of a B complex deficiency, and who could not take yeast concentrate by mouth, B_1 and B_2 and nicotinic acid parenterally, but where possible, yeast by mouth should be used during the pre-operative period.

In the completely or incompletely obstructed cases a feeding tube can be passed through the pylorus after a few days of suction therapy. When this is accomplished we feed our patients a protein hydrolysate fortified with glucose, fat and vitamins, directly into the jejunum. Such a program for from four to seven, or even ten days prior to operation is of the greatest importance, and the continuation of this feeding regimen during the postoperative period prevents further starvation at a time when the stomach cannot empty.

Edema around the suture line from the trauma of operation is greatly increased in the presence of hypoproteinemia. Many patients have been subjected to secondary operations for a supposed mechanical defect of the operation when in reality the obstruction at the site of the new stoma was the result of a profound biochemical disturbance. A careful study of the plasma chlorides and protein will frequently give the necessary clue for adequate treatment. It should be remembered that in the presence of a low plasma protein the administration of large amounts of sodium chloride will still further increase edema especially at the operative site. The postoperative care of these handicapped patients requires a working knowledge of the processes involved in keeping fluids in the blood vessels.

The method of oro-jejunal feeding which Doctor Stengel and I have reported permits gastric syphonage and jejunal feeding. Thus it permits the fulfillment of two requirements of the post-operative period, gastric rest and jejunal alimentation.

Regardless of the size of the new stoma and regardless of the presence or absence of hypoproteinemia some edema occurs along the line of suture and gastro-intestinal motility is not normal for some days after operation. The early feeding by mouth of a solid diet is, we believe, a mistake. The convalescence is smoother if solid food, even in the form of a low residue liet, is withheld until eight to twelve days after operation.

Regardless of what operation is done it must be remembered that the patient is not well when he leaves the hospital. He may have lost his ulcer but he may still possess the etiologic basis of his disease. It is, therefore, to his best interest to continue a medical regimen and to avoid smoking. Thus, the surgical treatment of gastric and duodenal ulcer remains in part a medical problem.

The surgeon in considering operation for a gastric or duodenal ulcer must, as Roscoe Graham has so well said, "Take into consideration (1) the site of the ulcer; (2) the character of the pathological lesion; (3) the associated physiological disturbances; (4) the resultant biochemical disturbances; (5) the age of the patient." When the patient accepts the decision that surgical therapy offers the best chance for cure he should expect: (1) an excellent chance of recovery from the operation; (2) relief from symptoms; (3) reasonable assurance against recurrence, and (4) ability to return to his usual work.

When the etiological factors in gastric and duodenal ulcer are more clearly defined it is highly likely that surgical therapy will play a smaller and smaller rôle in the treatment of these disorders.

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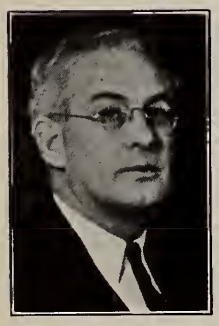
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Intestinal and Hepatic Disorders

In Congestive Circulatory Failure*

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■ The functional derangements which contribute to and result from congestive circulatory failure are probably the most complicated series of events which we have to deal with in Clinical Medicine. There have been many attempts to classify this condition; but, none of them has been entirely satisfactory as the series of events or conditions are not simple or constant. There are many variables which are modified from time to time both as to quality and quantity.

There would seem, however, to be one constant feature, namely, a depreciation of the myocardial function; in other words, a lessening of the capacity of the cardiac ventricles to maintain an efficient systolic output.

It is immaterial at the moment whether this depreciation is principally attributable to the right or left ventricle, and further, it is also immaterial whether the cause is infectious as in rheumatic or syphilitic carditis; metabolic as in thyroid disease or beri-beri; or degenerative as in hypertension, brown atrophy or simple coronary artery disease. The influence of valvular disease or arrhythmias is purely an embarrassment to the function of an already damaged myocardium. It is an interesting point to stress that congestive failure is seldom the result of an acute process. It is rather a long delayed aftermath. It seldom occurs during the acute carditis of rheumatic fever in childhood, acute syphilitic carditis, immediately following a coronary infarction, or during the acute stages of hypertension. An important feature of the condition is the chronicity of the initial lesion. But this does not contradict the fact that congestive failure may in itself progress in the first attack with astonishing rapidity. It would almost seem as if there were a summation of events, the combination of which leads to this peculiar but common circulatory disaster. Further, one attack is not necessarily permanent nor recurrent although it is usual for the latter to occur.

Rôle of Functional Disturbances

The known functional disturbances which may enter into the production of the condition may be summarized as follows.

Decreased Systolic Output and Reduced Minute Volume of the Blood Flow.—This is primarily a myocardial defect but may be aggravated by valvular lesions particularly mitral or aortic stenosis, tachycardias such as auricular fibrillation or flutter or paroxysmal auricular or ventricular tachycardia. If the myocardium is efficient, congestive failure will not supervene even if they be present.

Increased Venous Pressure.—This is a more complicated mechanism and may result from a number of factors.

(a) Increased intra-pulmonary pressure from a mitral valvular lesion or a left ventricular dilatation with uncompensated mitral insufficiency and positive intrapleural pressure, thus impairing the respiratory influence on venous return.

(b) Tricuspid insufficiency which produces an active increase of venous pressure as shown by a positive venous pulse.

Reduced Tissue Oxidation.—Either from impaired pulmonary function, reduced blood supply to the tissues, or a deficiency of vitamin B complex.

*Read before the Michigan State Medical Society, Grand Rapids, September 19, 1939.

It is an interesting point to remember that in congestive failure the oxygen requirements are apparently increased while at the same time the capacity to supply these needs is reduced.

As a result tissue anoxia is always on the verge of precipitation with consequent increase of lactic acid in the tissues with a tendency to a decrease in the pH, a state to which the myocardium is particularly intolerant.

Miscellaneous Group.—There may here be included a group of conditions which have a particularly aggravating influence rather than being initiating, namely, thyrotoxicosis, thyroid deficiency, impaired carbohydrate utilization, senility, physical effort, et cetera.

None of the causes in these four categories may of itself or in combination with others necessarily lead to congestive failure, although it is true that in many instances they might appear to do so.

It would seem that our knowledge is not yet complete in this condition.

Vicious Circles

That one or more vicious circles might develop to lead to a common end would appear probable. The beneficent effect of digitalis through improving myocardial systole would seem significant; but, the fact remains that it is not always effective although the cardiac rate may be reduced and the minute volume of blood flow brought to amounts which are quite adequate to maintain the circulation without congestive failure under other circumstances.

A profound derangement of the circulation not only affects the cardiovascular system itself but also the function of many organs any one of which may still further dislocate the fine circulatory adjustments and so perpetuate a vicious circle. To get a clear-cut experiment is difficult.

Beri-beri.—Perhaps the closest to this in the present problem is to be found in the wet form of beri-beri. But this may not be as simple and direct as at first sight it may appear. The work of Soma Weiss and his associates who demonstrated that congestive failure occurred in this country in cases where the usual causes were absent, and that there was an increase of the bisulphite binding substance in the blood of these patients and that they improved or were cured with vitamin B therapy, was most significant, as pointing to the probability of unrecognized beriberi being present in the temperate zone of this continent. They further demonstrated in a number of cases supposedly due to one of the recognized causes of congestive failure that the bisulphite binding substance was also increased in spite of no direct proof of a vitamin B deficiency in the diet. We have been able in general to corroborate their findings. This opens up an intriguing field for speculation and further investigation.

Engorgement of Hepatic Vein.—It is a well known observation that enlargement of the liver is almost constant in congestive failure. The latter may be slowly progressive or be an acute episode when tricuspid regurgitation occurs, the anatomical changes ranging from the so-called "nutmeg" liver to "cyanotic atrophy." This would suggest the possibility of some functional hepatic impairment.

Engorgement of the entire intestinal tract is also a common anatomical finding. This is to be expected when one realizes that the increased pressure in the hepatic vein is transmitted to the portal system through the hepatic capillary bed. It would seem important, therefore, to investigate what influence such a circulatory disturbance would have upon the functional efficiency of these organs.

The problem is not as simple as might appear at first sight. The functional tests applicable to our problem depend to a large degree upon a proper rate of blood flow through these tissues as well as in body as a whole. The approach to the problem has been indirect, of necessity, in some instances. This has been particularly so in the investigation of the intestinal function. Unfortunately our methods for this are restricted as to its finer quantitative details in relation to the function of time. There has been as yet no evidence obtainable from the contents of the feces that there is a gross impairment of carbohydrate, protein, fat or mineral absorption. I wish to outline today the results of some investigations along these lines.

It must be emphasized that congestion failure is quantitative and the resulting disturbances should be expected to be likewise.

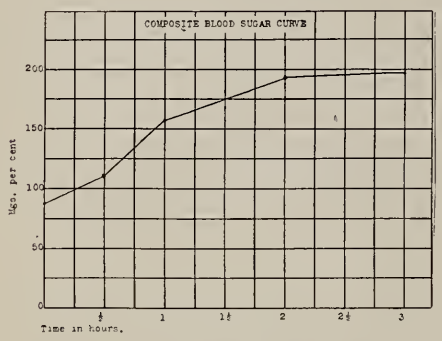


Fig. 1. Composite blood-sugar curve.

the opposite one at short intervals (Fig. 2). The initial rise is fairly constant although occasionally it may be found higher than normal. The

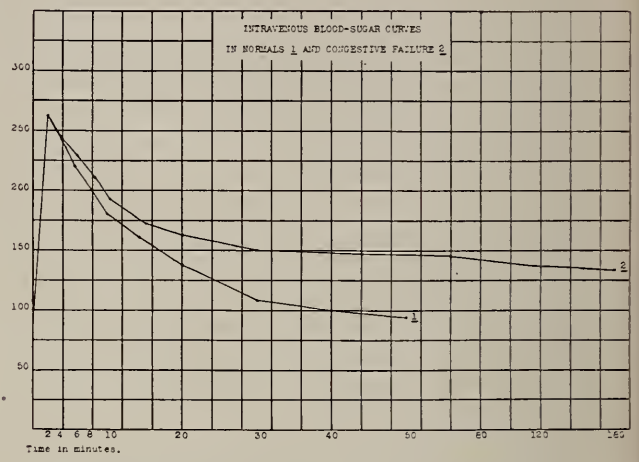


Fig. 2. Intravenous blood-sugar curves in normals (1) and congestive failure (2).

Laboratory Findings

Blood Sugar Curves (by mouth).—These were carried out in the usual manner by the ingestion of 100 gms. of glucose, after a fast of more than twelve hours, and the blood sugar was determined at regular intervals thereafter. These curves revealed a characteristic form. In distinction to the normal curve there was a slow rise and a prolonged plateau. In Figure 1 is found a composite curve from ten cases. The general contour, if outlined separately, is similar in all. They would suggest in the delayed rise either a slow absorption by the intestines or a rapid storage by the liver in the initial stages. The prolonged plateau would, on the other hand, suggest some hepatic difficulty in this regard.

If the suggestion that the first feature were due to an intestinal defect it would be open to debate as to whether this is a truly local functional impairment or the result of a slow portal blood flow.

It would seem too pronounced to be altogether due to the latter. For the moment the interpretation must be left in abeyance.

Blood Sugar Curves (by vein).—These curves were obtained by injecting, during two minutes, 100 c.c. of 20 per cent glucose saline into the anticubital vein and withdrawing blood from

prolonged elevation of the blood sugar would point to impaired glucose storage in the liver and would support the interpretation given to the plateau in the oral blood sugar curves. A secondary rise sometimes found in these intravenous curves still awaits an interpretation.

Galactose Liver Test.—The value of the galactose test for liver function has been given considerable credence by some. Like all functional test it has its limitations and its specific interpretation for hepatic function must be considered in the light of the condition of the whole intestinal-hepatic system. In the present investigations it has been found that the results would indicate a superlative hepatic efficiency. The test was carried out in the usual manner as follows: 40 gms. of galactose was ingested after a twelve-hour or more fast and the amount of galactose excreted in the urine over the following five hours was then determined. If this amount was greater than 3.0 gms. it was considered as indicative of deficient hepatic function. There are, however, two important factors in this test; first, the rate of absorption by the intestines and secondly, the capacity of the liver to convert galactose into glycogen. The latter is the basis of this test as an index of hepatic efficiency, but it does not take into consideration the rate of absorption by the intestinal tract. It has been shown that galactose is absorbed at a slower rate

than is glucose and the peak of its concentration in the portal blood is the determining factor in estimating hepatic function. If through delayed rate of intestinal absorption its concentration does not reach a certain level the load on the liver is not sufficient to tax the latter's capacity of forming and storing glycogen. Under normal conditions it finds that more difficult than the similar conversion of glucose. The amount of galactose excreted in the urine during the five-hour period has been much less in all instances than would be expected under normal conditions. In many instances it amounted merely to a trace. These results would, therefore, indicate in the first instance slow intestinal absorption rather than impaired hepatic function, although this may be present but it has not been sufficiently taxed by this test.

These results would substantiate the suggestion deduced from the slow rise in the blood sugar following the oral glucose curve —namely, that there is slow absorption of the sugar by the intestine. Therefore, this would modify its value as an indicator of the hepatic capacity to convert it into glycogen.

Protein Metabolism.—Apart from finding an excessive amount of protein nitrogen in the feces there is no test available at present which would indicate impairment of intestinal absorption of these substances. The liver, however, has a number of functions in regard to protein metabolism which are of considerable importance.

(a) *Total Plasma Proteins.*—The importance of the osmotic pressure of the plasma proteins, especially the albumin fraction, in the maintenance of the fluid equilibrium between the blood and the tissue spaces is well recognized. The reduction of the plasma albumin in association with edema in certain diseases of the kidneys, the liver, and in extreme states of biological protein deficiency, is well known. **In congestive failure there is usually a decrease in the total plasma protein which might be explained on the basis of a hydræmia** (average for ten cases —total plasma protein nitrogen 885 mgs. per cent, albumin fraction 498, and globulin fraction 357 mgs. per cent) if it were not for a relative and often absolute increase in the globulin fraction and of the fibrinogen (see below). A similar increase in the globulin has been found in cirrhosis of the liver and has been reported as occurring in certain types of sub-clinical avitaminosis. The exact manner of its causation or its significance in the present instance is not clear. We would suggest that it may be an additional indication of hepatic embarrassment.

The Takata-Ara test in diffuse lesions of the liver has been considered by some of considerable specificity. It would appear to depend upon the proportional flocculation of certain globulin fractions in the blood plasma. It has been shown that these flocculation tests can be varied by modifying the relative proportions of these fractions.

A positive Takata-Ara reaction in congestive failure is occasionally encountered which might be taken by its advocates as an indication of a functional disturbance of protein metabolism due to anatomical lesions within the liver.

(b) *Non-Protein Nitrogen and Its Constituents.*—The principal regulation of the total non-protein nitrogen of the blood rests upon the renal function. Some of its constituents, however, are influenced by the liver. In severe hepatic lesions there is an increase in the amino-acid of the blood due to their impaired deamination by the liver, while at the same time in man there is a decrease in the blood urea. These changes are conspicuous only when the hepatic lesion is diffuse and severe.

In our present studies we have found the non-protein nitrogen sometimes reaches a level compatible with a mild degree of renal impairment resultant from decreased renal blood flow, and this also occurred with the urea nitrogen. On occasion, however, the urea nitrogen was conspicuously low. It was difficult to reach any conclusion as to the significance of this finding as it was complicated in most cases by the effects of slow renal blood flow as an integral part of the systemic circulatory disturbance.

The amino-acid nitrogen determinations revealed a conspicuous increase above the normal values of 6 to 8 mgs. per cent. In every case it was above this level and was found as high

as 16 mgs. per cent. The average was 10 mgs. per cent. This finding would again suggest impaired hepatic function.

(c) *Fibrinogen.*—The fibrinogen of the blood is considered by most writers as being principally formed by the liver. Its amount in the plasma may be expressed either as protein (normal, 250 to 350 mgms. per cent) or as nitrogen of 40 to 56 mgs. per cent.

In the cases under present consideration the fibrinogen was constantly increased, the lowest being 391 mgs. per cent (62.5 mgs. of N.) and the highest 672 mgms. per cent (107.5 mgs. of N.). The explanation of this important finding is still elusive.

It is well known that in severe liver damage, as in acute yellow atrophy, the fibrinogen is conspicuously reduced whereas in less destructive but more stimulating lesions it may be equally increased. If we postulate liver damage in the present instance the above findings are paradoxical; but, it must be borne in mind that the quality as well as the quantity of injury is important and also that fibrinogen formation increases along with other plasma globulins in many injurious systemic disturbances. It is also interesting to note that those cases with the highest globulin fraction in the total protein had high fibrinogen readings and greater than the latter could account for.

It has been apparent that the work so far recorded would indicate that in congestive failure there is probably some impairment in the rate of intestinal absorption and also an interference in the normal metabolic functions of the liver. It remains to determine whether there is any corroborative evidence of the latter by more specific tests.

It is not unusual to encounter what has been called a "hæmorrhagic tendency" in cases of severe congestive failure. This must not be confused with the superficial and deep infarctions so often encountered in hypertension which have an entirely different etiology. The correlation of hepatic efficiency, fibrinogen, and prothrombin formation and lately the rôle of vitamin K in this complicated mechanism has only begun to be unravelled. Reference has already been made to the status of fibrinogen.

It remains now to deal with the prothrombin concentration in these cases. Again we are confronted with the relative importance of the absorption of vitamin K by the intestinal tract and its utilization by the liver to produce prothrombin. It is now tentatively held that there is a connection between these two functions. **We have found that in severe congestive failure there is a pronounced reduction in the prothrombin content of the blood.** Furthermore, it is as in the other functional tests proportionate to the degree and duration of the congestive failure. It is not unusual to find a prothrombin content of twenty per cent of normal increase to eighty per cent or even one hundred per cent as the circulatory failure improves. On the other hand, the administration of vitamin K does not always assist in this restitution. It was found in severe and prolonged congestive failure that vitamin K given either by mouth or parenterally had little or no effect in increasing the prothrombin concentration. This is in conformity with cases of severe liver damage as in cirrhosis and arsenic hepatic necrosis.

This would strongly indicate that in cyanotic atrophy of the liver this function along with others was seriously impaired and would be in part at least accountable for the hæmorrhagic tendency so often seen in these cases and as yet but little understood.

Bilirubinæmia.—In a previous publication attention has been drawn to the frequency of jaundice in congestive failure, especially in acute tricuspid insufficiency with consequent severe cyanotic atrophy of the liver and the bizarre distribution of the jaundice depending upon whether or not edema was present before its occurrence. Explanations have been put forward in an attempt to explain it on other than hepatic grounds but the experimental premises were not comparable. Our continued studies have not contradicted the original contention that this hyperbilirubinæmia was due to a serious change in the internal environment of the liver. It would not appear to suggest that in itself it has much systemic importance except by inference to indicate that the hepatic system was being subjected to a severely abnormal influence which might have repercussions in other directions.

Our present investigations substantiate the contention that the hyperbilirubinæmia is dependent upon a hepatic disturbance and not to other causes as it is present to some degree in all cases of congestive circulatory failure, even in cases without gross pulmonary lesions.

Urobilinogen.—Intimately associated with the hepatic function of bile pigments is that of urobilinogen. Its formation in the intestines and its absorption for conversion into bile pigments is a well known hypothesis based upon considerable experimental and clinical evidence. **The presence of urobilinogen in the urine is considered to be one of the most accurate indications of impaired hepatic function.** The accurate quantitative estimation of this pigment in the urine is fraught with many difficulties, but by meticulous care in collection and technic a fairly accurate estimate of the twenty-four-hour amount excreted can be arrived at. Like the other tests of hepatic efficiency this varies from time to time depending upon the severity and duration of the hepatic damage. We attempted to determine the amount excreted in the stools but this exhibited such irregular recovery estimates that it was found impossible to be certain of the validity of the results. We had an opportunity on several occasions to have well controlled serial estimates of the amount excreted in the twenty-four-hour collection of urine. The accompanying chart (Fig. 3) exhibits an accurate comparison of the day-to-day excretion during a severe and acute crisis of congestive failure. The maximal amount excreted in normal people in 24 hours is 2 mgms., whereas in cases of congestive failure it may reach many times that amount.

Bromsulphalein.—The use of selective dyes in testing the functional secretory power of various organs yields evidence which must be weighed carefully before definite conclusions are justified. Their excretion is not strictly physiological and may be modified by the rate of blood flow in general and through a specific organ in particular. In the present instance this must be particularly stressed. The test was done by the usual method of injecting into a vein 4 mgs. of the dye per kilo of body weight. The percentage concentration in the circulating blood was determined at the end of 10, 20 and 30 minutes by a photo-electric colorimeter. With an ocular colorimeter the dye should normally have entirely disappeared after one-half hour,

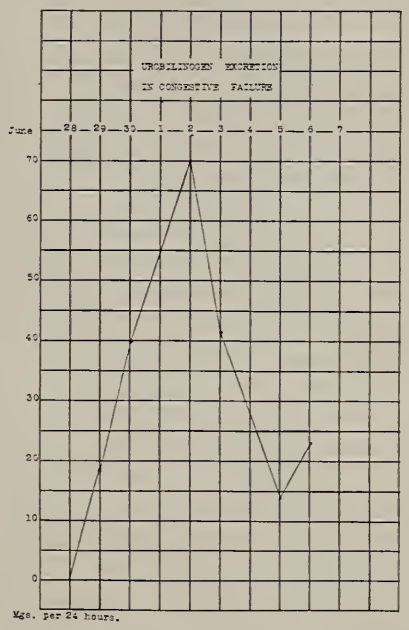


Fig. 3. Urobilinogen excretion in congestive failure.

but with the more accurate instrument a faint trace may be still detected at this time. **In cases of congestive failure the rate of its disappearance is reduced in proportion to the degree and duration of hepatic involvement.** In fourteen cases of severe congestive failure the average amount of dye present at ten minutes was 67 per cent; twenty minutes, 34 per cent, and thirty minutes, 22 per cent*. In cases where the congestive failure had completely disappeared the bromsulphalein returned to normal but in those where congestive failure continued to a modified degree and the liver remained enlarged, the elimination of the dye was definitely retarded in proportion to degree and duration of circulatory failure.

Discussion

The observations outlined above would strongly indicate although not necessarily prove that there is impairment in the function of intestinal absorption. It would appear that this is most likely due to a retardation of the blood flow and anoxia of the tissues resulting therefrom, and

*The concentration of bromsulphalein in the blood soon after its injection has been determined and remains fairly constant in normal people. These figures represent the percentage of this amount. The more efficient the liver function, the lower will be this percentage.

to any anoxæmia from deficient pulmonary function.

The evidence of impairment of liver function is of greater significance. This may be contributed to by the same causes but there is in addition evidence of actual anatomical damage varying in degree from the fatty change in the so-called nutmeg liver to that found in cyanotic atrophy, where the greater portion of the liver has an abnormal environment. The only finding that does indicate a definite impairment of hepatic function is the increase of the fibrinogen. This may be open to a rational explanation which is not now apparent.

The rôle of the liver in the chain of reactions for the proper utilization and function of the vitamin B complex is of great importance. Whereas there are undoubtedly cases where there is an abnormally reduced dietary supply of this vitamin, there are on the other hand cases in which from the history and from observation the vitamin B intake has been sufficient but excessive amounts of pyuric acid have been recovered. It is interesting and important to speculate whether this can have any reflection upon the amount of vitamin B taken up by the intestines or whether the breakdown occurs from the hepatic disturbance or a missing link in the tissue oxidations themselves. The well known accumulation of lactic acid in the blood in severe stages of congestive failure could as readily be attributed to the liver or to the tissues themselves. With our present knowledge it would be unwise to arrive at any final conclusion but it points the way for further study.

The conception of congestive failure as a simple circulatory breakdown of a series of hæmodynamic functions is not satisfactory. There are indications, as I have attempted to point out, which implicate the intestinal and hepatic functions. These are not included in the more obvious signs of disease of these organs but they nevertheless may have a profound effect upon the circulation insofar as cellular oxidations and capillary permeability are concerned.

Additional Therapeutic Approaches

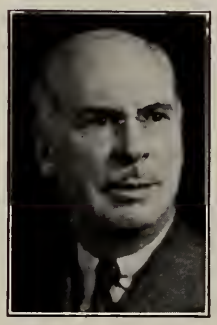
I would suggest three important therapeutic approaches in addition to the accepted treatment of these cases. They are as follows: Thiamin chloride parenterally, especially in cases where the local cardiac findings leave any doubt as to the etiology of the congestive failure; Glucose in high concentration (25 per cent) but in small amounts (50 c.c.) intravenously, especially when flatulence or other gastro-intestinal disturbance is a prominent feature, and Cortin when the blood pressure (especially the pulse pressure) is low.

There would appear to me to be a vicious circle present which is not altogether circulatory nor altogether metabolic but a combination with a variable dominance of one or other in different cases. Therapy is still individualistic in spite of specific remedies and the gastro-intestinal tract and the liver have been too long neglected in this common but still more baffling of medical syndromes.

Sarcoma

Versus Stromatous Endometriosis of the Uterus*

By James R. Goodall, M.D.
Montreal, Canada



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■ Of sixteen cases of sarcoma of the uterus that have come under my observation in the last ten years, fourteen of these, upon close study and in the light of better knowledge, have been proven to be interstitial endometriosis, and are still alive and well; the other two are still in doubt, owing to insufficient evidence and to a lack of a follow-up. Undoubtedly, sarcoma of the uterus does occur. One would expect it from the unrest of the organ during its functioning years, but the discovery of interstitial or stro-

*From a paper read at the annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 20, 1939.

matous endometriosis and endometriomata of the uterus has shown that the vast majority of these tumors heretofore diagnosed as sarcoma are really quite benign new growths, as proved by their origin, their mode of invasion, their non-destructiveness, their lack of cachexia, and lastly, and most convincing, their lack of the lethal qualities of sarcoma. For mark well, these fourteen cases are alive and well for periods ranging from two to ten years.

What is stromatous or interstitial endometriosis? It is an invasion of the uterine wall and of the contiguous uterine tissues by the stroma cell of the uterine mucosa.

The endometrium, as you all well know, is made up of two specific types of cells, specific in the sense that they are found in the uterus and nowhere else, and specific in that they have a special definite function. These two cells are the interstitial cell and the gland cell. The relationship of these two structures is not fully known. Is the stroma cell the progenitor of the gland, or is it merely a foundation for the support of the glands? These are questions which cannot be answered convincingly at the moment. But opinion and research incline to regard them of different origin, non-interchangeable and of different functions. I think I may state definitely owing to my studies, that their origin is from basically different structures at a different period of embryonic life, and that the stroma cell is not the parent of the gland lining. However, that is not germane to our subject.

Physiology

Functionally, the two cells respond to the hormones which determine the menstrual cyclic change, but in quite a different way. The glands become hyperplastic and seem to spend all their energy in division during the follicular stage of the ovary, to be superceded later by hyperfunctional characters in the luteum stage of the sex organ. Whereas, the stroma cell, which heretofore has been a neglected cousin, has a much less conspicuous rôle. Its cells enlarge and proliferate during the follicular stage and range themselves into three layers; the basal, the spongey, composed of an open network of glands, and the superficial compact layer, composed largely of stroma cells. The superficial layer takes on decidual change just before menstruation sets in, and is known as decidua menstrualis. The later changes are due to vascular regression and are destructive in character. All this is a preparation for, and regression after lack of, impregnation. The object of enumerating these changes is to show that the specific cells of the endometrium are in a constant state of flux during the whole of the sexual life, and that they are the victims of the ovarian hormones. Now, we know that every function of the body is under control of something else, and that something else is usually a hormone; and that these are subject to exaggeration or to depressed output, by a legion of causes which operate from within and without, and we must understand that all gland aberration is in the nature of an accommodation to a change in environment, and whether that change is in the remote environment or in the immediate internal milieu surrounding the cell, is a matter of degree and not of specificity. Excessive or deficient action of the glands which control function are the two specific ways in which they modify their influence. The uterine wall, as distinguished from the endometrium, has three component tissues. They are muscle, connective tissue including elastic tissue, and endometrial stroma cells. It is impossible to state at present how much and to what depth the stroma cells of the endometrium normally pervade the uterine parietes. But in a vast majority of cases in the sexual age there is a diffuse ramification permeating between the muscle bundles into finer and finer branches as one recedes from the basal layer of the endometrium.

Pathology

Under abnormal endocrine conditions the specific endometrial elements pervade the uterine wall to a definitely pathological degree, and this pervasion may be, and usually is, composed of both stroma and glandular elements, or (and this is our chief interest) it may be composed of stroma cells only. This is where it has been indistinguishable from sarcoma of the uterus. When both endometrial elements (mixed endometriosis) invade the uterine wall, these may function simultaneously with and

similarly to the normally situated endometrium in response to the menstrual cycle, so that we have a distinguishing gross feature. But the stromatous invasions never respond to the menstrual cyclic changes, so that in this also their resemblance to sarcoma is enhanced.

Stromatous invasions of the uterine wall may be diffuse and without loss of uterine symmetry, or they may be local, giving rise to a definite tumor, causing loss of symmetry and bimanually closely simulating fibroma, for which they are almost invariably mistaken.

The invasion extends along the lymphatic channels, between the muscle bundles of the uterine wall, and even in their most rapid forms of growth, though they invade the lymphatic and venous channels, they do not destroy, but merely crowd the other tissues aside to make room for the guest. The lymphatic linings are mostly intact, even though the lumen be filled with an insinuating growth. The same applies to the venous vessels, though venous is much less common than lymphatic invasion.

When the endometrial growth worms its way along a vessel, whether lymphatic or venous, it usually carries its own blood supply. In the diffuse types (stromatous endometriosis) the growth may pervade the whole depth of the uterus and invade the lymphatics of the broad ligament, and by direct continuity, extend slightly beyond the pelvic limits.

The new growth may give the lymphatics of the broad ligaments the appearance of thick ropes extending to the pelvic wall, and on opening the invaded channels, one can roll the growth out as a worm from its bed.

The type of component cell is that of a small round-celled sarcoma. But the blood vessels are the normal thick-walled vessels of the invaded tissue, or thin-walled vessel associated with the invading tissue, and as the growth does not destroy, but merely pushes fixed tissues aside or surrounds them, these different types of vessels are often in close approximation. In the local forms of this growth (stromatous endometrioma) the tumor may form a definite mass with extensive roots at its periphery and without defining capsule. In the more chronic types a capsule is formed both by compression of the surrounding tissues, and by concomitant growth of these tissues under the common growth stimulus. Depending upon the chronicity of the growth, the component cell may vary from a small round-celled type through the spindle type, to that approaching the component cell of a richly cellular fibroma. They are frequently multiple, of varied sizes and may occupy any site in the uterine wall.

At times the growth is restricted entirely to the mucosa of the uterus. Under these circumstances the mucosa is greatly thickened, almost devoid of glands and is prone to develop more rapidly in places to form polypi. Tissue of this nature obtained by curette has almost invariably been diagnosed as sarcoma, and in the lesser forms as an interstitial endometritis.

We do not know what causes determine an interstitial cell proliferation to pervade the uterine wall in one case, and to grow into the uterine cavity in another, any more than we know what may cause an epithelial growth to grow as a surface papilloma in one case, and as an invading carcinoma in another. In the more chronic forms of stromatous endometriomata, there is frequently an accompanying mixed endometriosis of the extra-uterine appendages and contiguous pelvic tissues, and in about 30 per cent of cases there are accompanying fibromata and fibromyomata. The extra-uterine endometriosis, giving rise to nodules in the pouch of Douglas, is a valuable aid to a correct clinical and pathological diagnosis. The presence of the fibroids and myomata, and the general hypertrophy of the uterus which accompanies any form of the uterine wall endometriosis are a response of the component cells of the uterine wall to the common stimulus of the abnormal hormonal influence.

Ectopic endometrial invasions of tissues may or may not respond to the hormones of the menstrual cycle. Those invasions that are composed of the two specific elements of the endometrium, namely stroma cells and glands, may or may not respond. This depends upon extrinsic and intrinsic factors of the ectopic growth. Among these are location,

soil, organ-host, vascularity and quantum of hormonal stimulus. Ectopic endometrial growths, composed exclusively of stroma, never respond appreciably to the menstrual influences.

Parietal endometrial invasions of whatever kind, but especially of the stromatous types, are usually only the most obvious expressions of the abnormal stimulus. In all the cases of stromatous invasion of the uterine wall, one finds other parts of the genital canal responsive to the same cause, only in a lesser and less striking degree. In a very large percentage of cases one finds hypertrophic responses in the nature of cystic occlusions, hypertrophy, polypi, ectropion, adenomatous invasion of the cervix, and precancerous (so-called) changes in the cervical epithelium. I have already mentioned the frequent association of pelvic endometriosis, fibroids and myomatous growths with uterine endometriosis.

It may be seen from these case histories* how difficult it may be to differentiate these growths from sarcomata. That all my cited cases were diagnosed as uterine sarcoma is not surprising. But the closer study of these cases with our increased knowledge upon the subject, together with a study of the follow-up system, makes it inevitable that we change our diagnosis for a much more favorable one.

Most encouraging is the fact that all the cases are alive and well from two to ten years after operation—a result inconsistent with sarcoma. Moreover, the connection of these growths with the endometrial stroma, and their propagation from this source leaves the matter no longer in doubt.

What Is the Cause of Ectopic Endometrial Growth?

In endeavouring to answer this question we pass from the factual to the hypothetical. However, the speculative in medicine is always filled with romance, and Heaven knows, medicine has been sheared of most of its romance.

The philosophical precedes the scientific in all branches of study. We do know that the ovary, if not the primary, is at least an essential intermediary for the functioning of the endometrium. Menstruation ceases with the removal of the ovaries. We know equally well that the ovary is almost essential for the continued growth of ectopic endometrial tissue. The cases on record of continued or renewed growth of endometriosis are very few indeed in the literature. However, they do occur, as already reported by myself —a case that recurred with extraordinary virulence seven years after double ovariotomy and a full course of deep x-ray. We know equally well that with but two exceptions, the disease is limited to the zone of ovarian influence. The hormone of the ovary which would seem to be the culpable agent, is the growth hormone, estrin, or one of its derivatives. How does it operate? Estrin causes great thickening of the endometrium by a multiplication of its cells, during the maturation of the ovarian follicle. Progesterone, on the other hand, is the maturation principle of the endometrial function, causing the endometrium to become succulent preparatory for nidation. In the intermediate stage, after rupture of the follicle, one finds a diminishing effect of estrin and increasing effect of progesterone as maturation of the corpus luteum proceeds.

If endometriosis is the result of an excessive action of estrin, this excessive action may be brought about by one of two means. It may imply an excess of estrin in the blood, which ought to be measurable. But we do know that the amount of estrin in the blood may vary within very wide limits without producing appreciable physiological or pathological results. We have a close analogy in the sugar content of blood. One has to take into account the individual susceptibility in each case. But we do know also, that estrin can be retained in the tissues in large quantity, and is not liberated except by a liberal supply of progesterone. Could it not be, then, that endometriosis is due to a lack of progesterone, causing undue and prolonged action of estrin in the endometrial cells, for the endometrial cells are thought to be the repository of oestrin retention? Be that as it may, we must recognize that the ovarian function plays a very prominent rôle in endometriosis. But how can we explain the continued growth or renewed activity of the endometriosis after double ovariotomy?

*For further particulars of cases I would refer my readers to the article on "Interstitial Endometriosis" in the Transactions of the American Association of Gynecologists, Obstetricians and Abdominal Surgeons of 1938, and to the article under similar caption to appear shortly in the *Journal of Obstetrics and Gynecology of the British Empire*, or again to my monograph on "Endometriosis" just approaching completion.

Nature seldom trusts the permanence of the species to any essential function entrusted to a single gland. The glandular system possesses a vicariousness that is unknown in any other corporeal function. Substitutive function is an interesting feature of endocrinology. The glands of internal secretion are like a group of banks coöperating for mutual protection, and individual or collective help is always at hand.

Fatigue in a gland can be temporarily remedied by assistance by adjuvant glands, but exhaustion of the reserve of a gland eventually entails exhaustion of the subsidizing glandular systems. It is known that there is not only coöperation by substitution of function, but there is also cooperation in the nature of restraint of function. For example, there is a direct antagonism between thyroid and ovarian function, and it is within the experience of every clinician that ovarian function is inhibited in hyperthyroidism, frequently to the degree of causing arrest of menstruation, and that hypothyroidism is chiefly accompanied by menorrhagia and metrorrhagia, which are merely expressions of vitiated ovarian function. What, then, can substitute for the absence of the ovaries in a case of ovarian ablation? Primarily, it is not due to accessory ovaries, because in one of my cases, total ablation was followed immediately by a heavy course of deep x-ray, and renewed activity of the endometriosis did not occur until six and a half years after operation. Prolan A, of course, would come into question, and I think all are agreed, that, though Prolan may be the stimulating cause, it cannot of itself supply the estrin except through the intermediary of some other organ. We do know that the suprarenal can act as a substitution organ for the products of testicular and of some of the ovarian hormonal products, but I also believe that endocrinologists are not prepared to admit that the adrenal can produce vicariously the true ovarian estrogenic substances. This is a subject full of interest, but as yet inconclusive. That estrin is produced by a substitute organ, if estrin be the cause of endometriosis, cannot be gainsaid. Estrogens are chemically very closely allied to the carcinogenic tar substances, and one naturally asks, if associated with endometriosis of the pelvis one so commonly finds overgrowth and precancerous conditions of the cervix, whether endometriosis itself is not productive of cancer.

And right here is a contradiction, for though on microscopic and clinical grounds, one would assume that endometriosis would readily pass over into a true malignancy, yet virtually most of the cases of malignancy with endometriosis have been shown to be an accidental association of two diseases. Stromatous endometriosis is non-malignant, and is not destructive of tissues or of life. Endometriosis is inhibitory to pregnancy.

In my fourteen reported cases there was barrenness or sterility for a period of at least fifteen years. Endometriomata migrate in the uterine wall in a manner similar to that of fibroids. Eventually in their migration they become subserous or submucous, at first sessile, later pedunculated. Intra-uterine polypoidal endometriomata are not uncommon. At times, tumors necrose and are shed.

Treatment

Stromatous endometriosis is a new growth, assuming all degrees of rapidity of division and various degrees of cell embryony. Being closely dependent upon ovarian function for continued growth, removal of both ovaries or mechanical devitalization of these organs, generally brings about a quick regression of the endometriosis. In women approaching the menopause such a procedure, whether it be surgical or by deep x-ray or by radium, is an easy and effective means of overcoming the disease. But endometriosis unfortunately occurs in any of the years of sexual activity and, when confronted with a case of stromatous endometriosis in a young woman or girl, one is confronted with a serious combination of circumstances. Though we know that ordinary endometriosis, composed of both cellular elements of the endometrium, very often regresses spontaneously, one cannot state with the same assurance what is the course of stromatous endometriosis. The number of cases under study has been too few to warrant any conclusions to be drawn in respect of their course. We do know, as outlined in my work, that spontaneous degeneration frequently occurs, but whether this is merely a liquifaction due to local vascular derangement, or whether this is the initial step to

a complete cure, would be hazardous even to venture an opinion under present circumstances.

There is another inhibitory factor to a discriminating treatment, and that is that the diagnosis of interstitial endometriosis and endometrioma is seldom made except at operation, or by biopsy, so in the majority of cases one will have completed one's operation under a temporary false diagnosis, or the treatment by radium or x-ray will have been carried out under a permanently false diagnosis.

At most, one can state that stromatous endometriosis and endometrioma is a new disease and will require a great deal of painstaking study of large numbers of cases before one can be dogmatic as to its cause, course, and end-results.

Potassium Chloride In Allergy

A Report of One Hundred Seventeen Cases

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The advent of the use of potassium chloride provided us with a means of attempting a simplified form of relief for sufferers with various allergic disorders. The results are amazing.

The average dose has been ten grains (0.65 gm.) in a full glass of water three times daily, after meals. Patients were requested to report by telephone or letter forty-eight hours after beginning the treatment. The only ill effects our patients experienced were nausea and abdominal cramps in a few cases. A number of failures in our early experience were reduced materially upon advice from Benson Bloom to increase the dosage to fifty or sixty grains daily in those cases which failed to respond favorably.

Results

Hay Fever

Twenty-six patients with a known pollen rhinitis were treated throughout the hay fever season.

Complete relief	9
Improved	15
Unimproved	2
Total	26

Food Allergy

Seventeen patients manifesting a typical allergic rhinitis and with a known sensitivity to one or more foods comprise this group.

Complete relief	5
Improved	9
Unimproved	3
Total	17

Mixed Allergy

This group consists of fifty-one patients who were definitely sensitive to a combination of foods or pollens and other extrinsic allergens.

Complete relief	7
Improved	32
Unimproved	5
No report	7
Total	51

Allergens Unknown

Eighteen patients who had the typical clinical and laboratory findings of allergic rhinitis but with no definitely known allergens were treated empirically.

Complete relief	1
Improved	9
Unimproved	3
No report	5
Total	18

Migraine

Four patients who had definite migraine and whose attacks were precipitated by known foods were treated with potassium chloride. Two obtained complete relief from their headaches and could eat the foods which offended them without precipitating an attack. One patient considered his symptoms greatly relieved and the fourth patient obtained no relief.

Meniere's Disease

One patient with Meniere's disease has been taking potassium chloride continuously for over seven months and has not experienced an attack, except the week following an attempt to reduce his daily dosage from 30 grains to 20 grains.

We have observed the diminution in size of polypi in many instances, but have never seen them completely disappear. One case of chronic asthma, which was classified in Group 3 and one chronic asthmatic in Group 4 were among the failures. They experienced no untoward results from the use of the medication.

Comment

We possess no knowledge of the chemical action of potassium salts in the body. Bloom and others have emphasized the importance of an altered electrolyte metabolism in endocrine disturbances. Many of the cases with nasal findings suggesting allergy, but who knew of no definite allergens causing their symptoms, were studied and found to be hypometabolic. It is our experience that many patients with allergic symptoms have a low metabolic rate. We hope to present definite statistics on this observation in the near future.

Conclusions

1. A series of 117 cases of allergic rhinitis and allied allergic or questionable allergic disorders were treated with potassium chloride.

2. Potassium chloride seems to offer to the victim of allergic rhinitis and many allied allergic disturbances complete relief in many instances and improvement in a large percentage of cases.

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Comments editorially on "Urolithiasis from Sulfapyridine" using as a basis articles by Antopol and Robinson; Gross, Cooper and Lewis, and Keen indicates that this may be a common sequela. The editorial raises the question: "Complications of such gravity following the use of any drug warrant serious consideration. There comes to mind the glowing reports of the efficacy of dinitrophenol in obesity and the wave of cataracts that followed its use. Does it not seem advisable to advocate restraint in the use of sulfapyridine in such cases as do not respond to other proved forms of treatment? Is it advisable that the expectation of the 'crisis' be shortened from seven days to one and then turn a medically sick patient into a potential surgical risk?"—*New York State Journal of Medicine,* (Feb. 15, 1940).

Migraine

Treatment with Chondroitin

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Glenn E. Drewyer, M.D.

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In private practice I had observed a number of migraine victims who were difficult to control, and was interested in the report of Crandall, Roberts, and Snorf[1] on the effectiveness of chondroitin. This substance has the advantage that it can be given orally, it is a preventive treatment rather than one directed toward the control of individual attacks, and according to the available data[1] it offers at least as good and perhaps better prospects of relief than any means of preventive therapy now available. I have therefore studied the action of chondroitin in a series of patients complaining of severe forms of migraine or idiopathic headache of the migraine type. Many of these had been receiving calcium, thyroid, emmenin, or theelin as preventive medication and ergotamine tartrate or pituitrin for specific attacks prior to being placed upon chondroitin therapy. A total of fifty cases had been collected. Of these, thirty have been under treatment with chondroitin for more than six months and it is believed that their response can be definitely classified; the majority of them have been receiving chondroitin for more than one year, the maximum being three years. In the great majority of these patients the severity of the attacks was such as to incapacitate the patient completely and their frequency was once a week or more. In such severe cases the total time lost by the patient is a serious handicap.

The twenty patients who have been on treatment for less than six months are not reported in detail because it is not believed that definite conclusions can be drawn from shorter periods. This is in part due to the well known tendency of the migraine patients to respond by temporary improvement to any change in therapy. The responses of these twenty cases, however, are in all respects similar to those of the individuals who have been followed over longer periods.

Diagnosis

The diagnosis of migraine has been reserved for those patients exhibiting substantially all of the classical features of this condition, namely, periodic unilateral headache preceded by prodromata and accompanied by nausea and vomiting, and with a history of migraine or sick headache in the immediate family. Patients with attacks resembling migraine but not presenting all the typical characteristics, have been classified as having idiopathic headache.

Treatment

Chondroitin* has been used in the form of capsules containing 0.6 grams, and four such capsules have been given three times daily after meals as recommended by Crandall *et al.* A number of the patients who have been much benefited have now taken this material daily over periods of more than two years; this can be stated with confidence since the chondroitin has been dispensed by the writer to patients in private practice who have been glad to purchase it for the relief obtained. This fact alone, namely, the willingness of private patients to continue the use of the material at their own expense and over long periods of time, is perhaps the best evidence of its effectiveness. Ergotamine tartrate orally and parenterally, calcium salts orally, and pituitrin parenterally, have also been used by the writer during these year. In agreement with other investigators, I have observed that attacks may commonly be aborted by ergotamine tartrate intramuscularly, but this drug has not succeeded in reducing the number of attacks when given daily by mouth.

Summary

A series of thirty cases of migraine and idiopathic headache have been under treatment with chondroitin for periods of six months to three years. Of these 67 per cent have been completely relieved of their symptoms, 13 per cent have been partially relieved, and 20 per cent are failures. Among the failures those with true migraine were often relieved by ergotamine tartrate intramuscularly.

Twenty other cases have been treated with chondroitin for six months or less, and the results so far closely parallel the first series; however, the period of observation has been too short to include them in this report.

TABLE OF RESULTS

	Number of Cases	Relief Complete	Partial Relief	Failure
Migraine	16	11	1	4
Idiopathic headache..	14	10	2	2

Conclusions

The action of chondroitin has been studied on thirty private patients presenting themselves with either migraine or idiopathic headache. I believe it is a valuable adjunct in the therapy of prevention of these types of headache.

EDITOR'S NOTE: The use of Chondroitin is still considered in the experimental stage by the Council of Pharmacy and Chemistry of the American Medical Association.

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1110 Union Ind. Bk. Bldg.

*Manufactured by Wilson Laboratories, Chicago, Illinois.

Clinical Roentgenology of the Gall-bladder*

By Clarence E. Weaver, M.D.
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■ THE purpose of this paper is to report briefly on our experience with x-ray examination of the gall-bladder by the Graham method over a thirteen year period. We wish to prove the reliability of the method, to call to your attention some of the errors to be avoided, and to discuss some of the clinical aspects of the problem with special emphasis on the necessity for a complete examination of the patient. To establish the fact that a patient has disease of the gall-bladder is not difficult, but to correctly conclude that the gall-bladder pathology is responsible entirely for the symptoms of which that patient complains

*Read before the Wayne County Medical Society, March 20, 1939.

is a much more complex and important problem. Limiting our examination to a single organ to test a clinical deduction is unsound practice. A complete examination is necessary and we urge the coöperation of the clinician and roentgenologist to that end.

Technic Used

We have used the oral method of administering tetraiodophenolphthalein entirely. The patient is given 5 gm. of iodeikon. This is taken in one dose in a half glass of grape juice immediately after a fat free evening meal, the night preceding the x-ray examination. He is told to lie on his right side for half an hour after ingestion of the dye. This hastens emptying into the duodenum and reduces nausea. The patient takes a cleansing enema the following morning, and reports fasting between ten and eleven A.M. Vomiting seldom occurs after taking the dye. When it does occur there is no interference with the examination unless it happens immediately after ingestion. We repeat the examination in those who have vomited and no shadow of the gall-bladder is obtained. We have rarely found this necessary. Films are made to include the right side of the abdomen from the tenth rib to a point well below the iliac crest, as the gall-bladder may be found anywhere within these limits. An oblique view is also made with the right hip and shoulder elevated. This is important as it sometimes brings into view a gall-bladder which is hidden by the spine. This position also helps to free the organ from intestinal shadows, thereby verifying or disproving the presence of negative stone shadows. We have not used the upright position though we recognize the fact that in an occasional case it may prove of some benefit. After viewing the films the patient is instructed to eat two soft boiled eggs, well buttered toast and a glass of half and half milk and cream, and to return in one and a half hours for a second examination. The normal gall-bladder is usually at least half empty at this time.

To obtain a gall-bladder shadow the dye must reach the liver by the blood stream, the liver must excrete the dye, the cystic duct must be patent, the gall-bladder mucosa must be able to concentrate the bile and the restraining mechanism at the Ampulla of Vater must be functioning. If any of these functions fail, no shadow is obtained.

Causes of slow emptying of the gall-bladder may be reflex disturbance, improper food stimulation, gall-bladder disease such as cholecystitis in which the muscular tunic is incapable of proper contraction, stones blocking the cystic duct as ball-valves, or pericholecystitis with adhesions preventing contraction.[9] We have seen slow emptying in cases of duodenal ulcer, probably due to spasm of the sphincter of Oddi.

Examination of Radiographs

In examining the gall-bladder radiographs one must be careful to avoid misinterpretation due to confusing or extraneous shadows. Some of these are kidney stone, lower pole of the right kidney, quadrate lobe of the liver, loop of small bowel, the duodenal shadow, gas and other intestinal contents, calcified glands, calcification of the costal cartilages, a mole on the skin and the shadow of the gastric antrum. We have occasionally found it necessary to give a few swallows of barium to be able to differentiate a faint shadow of the gall-bladder from the antrum of the stomach. The right kidney shadow is usually well seen. Its size, shape and position should be noted and whether renal calculi are present. There is also an opportunity to note whether any abnormality of the spine of this area exists. Occasionally, we have discovered disease of the lower dorsal spine, which was responsible for the patients complaint, whereas the gall-bladder was found normal. Potter[11] warns of shadows of diverticuli of the hepatic flexure which might be confused with stones in the gallbladder. We seldom feel justified in diagnosing adhesions of the gall-bladder because we have been more often wrong than correct when the patient came to operation. It is well to remember, in this connection, that a rather common congenital anomaly of the gall-bladder known as the "Phrygian Cap" produces considerable deformity, but is of no clinical significance.[1] We have had one case of polyp which was incorrectly interpreted as stone. We have never diagnosed carcinoma of the gall-bladder from x-ray evidence.

TABLE I. LESIONS WHICH MAY BE MISTAKEN FOR GALL-BLADDER DISEASE OR MAY BE CO-INCIDENT WITH IT.

Right renal pathology	Gastric carcinoma
Duodenal ulcer	Diverticulosis of colon
Hypotonic colon with stasis	Hiatus hernia of stomach
Cardiac disease	Gastric crises
Retrocecal appendix	Neurosis
Arthritis of spine	

Sources of Error

Peptic Ulcer.—There is a difference of opinion regarding the effect of duodenal ulcer on the response of the gall-bladder to the Graham test.[5,6,8] In fourteen cases, we have felt it inadvisable to diagnose pathology in the gall-bladder because of the presence of duodenal ulcer. It is possible for a spastic sphincter or duodenum

to prevent gall-bladder evacuation.[5] We think ulcer may produce such a disturbance. We can recall at least two cases in which slow emptying of the gall-bladder was noted in the presence of duodenal ulcer. We feel very strongly that peptic ulcer should always be ruled out as the cause of symptoms in suspected gall-bladder disease. When both conditions appear to be present an ulcer regime should be tried to determine whether or not the patient obtains relief of his symptoms.

Meyers, Sandweiss and Saltzstein[10] report that 11 per cent of 136 cholecystectomized patients had peptic ulcer. Our percentage runs much lower than this but does not offer a true comparison because unfortunately all our cholecystographies have not had simultaneous examinations of the stomach and duodenum. It is our experience that ulcer is more likely to be mistaken for gall-bladder disease than to occur with it. If our theory that ulcer interferes with normal cholecystographic response is correct, then it is possible that a normal gall-bladder might be misinterpreted as the site of pathology although the ulcer is the sole cause of symptoms.[8] Our proven cases of co-incidence of gall-bladder disease and ulcer among our operated series of 461 cases is 1.5 per cent.

TABLE II. DIVERTICULOSIS OF COLON WITH GALL-BLADDER PATHOLOGY.

Cases with diverticulosis	119	
Cases with diverticulosis and gall-bladder pathology	29	24.4%
Cases with diverticulosis and normal gall-bladder	23	19%
TOTAL cases in which both organs were examined	52	44%
Incidence of gall-bladder disease in cases where both were examined		55.7%

Diverticulosis.—We have been impressed with the high percentage of gall-bladder disease in those patients who have diverticulosis of the colon. Of 119 patients with diverticulosis we found 29 who had co-incident disease of the gall-bladder. This is 25 per cent. Fifty-two patients had x-ray of both the gall-bladder and the colon. Of these, almost 56 per cent had co-incident diverticulosis and gall-bladder disease. The relationship here is not clear but may be explained partly by the fact that both conditions are prone to occur in the same type of individual.[12] We incline more to the belief, however, that infection from the diverticuli is carried to the gall-bladder and liver by way of the portal system. A good number of our cases were not of the habitus usually thought to be associated with gall-bladder disease and diverticulosis. Our experience indicates that in a patient with diverticulosis of the colon there is a little more than a 50 per cent chance that cholecystitis is also present.

Other Diseases.—On account of the relatively high incidence of gall-bladder disease, one must be careful in attributing the patients symptoms to this condition when it is discovered by the x-ray examination. The Roentgenologist must accept his share of the responsibility in this matter. He should remember that he is examining a patient and not merely x-raying a gall-bladder. We have found stone in the right kidney and ureter, hydronephrosis, appendiceal pathology, duodenal ulcer, colonic pathology, gastric carcinoma, Banti's disease and cardiac disease accompanying evidence of cholecystitis. We have many times found a normal gall-bladder in patients suspected of disease of this organ and have found the true pathology to be ulcer, gastric carcinoma, colitis, markedly redundant colon with stasis, retrocecal appendix, right renal disease, pathology of the spine, hiatus hernia of the stomach, gastric crisis and neurosis. Removal of the gall-bladder in such cases is likely to be followed by a high postoperative morbidity. For this reason we have tried to be conservative in diagnosing disease of the gall-bladder on the x-ray films.

Dependability of X-ray Examinations

TABLE III. OPERATED CASES

Total number operated	461
Diagnosed pathological	370
Diagnosis confirmed	361
Diagnosis not confirmed	9
Diagnosed normal	91
Diagnosis confirmed	72
Diagnosis not confirmed	19
Percentage of error for pathological diagnosis	2.43%
Percentage of error for normal diagnosis	20.8%
Percentage of error for entire group	6.07%

In 461 cases that have been operated upon, the x-ray findings have been confirmed in 94 per cent. Diagnosis of gall-bladder disease has been confirmed in 97.5 per cent. The diagnosis of the normal organ has proved correct in only 80 per cent of those operated upon. Our experience has taught that when we obtain no shadow after administration of the dye we can be sure that there is gall-bladder disease. Of course, technical errors and pyloric obstruction must be ruled

out. The presence of calculi also is positive indication of disease. Gall-bladders which show very faint shadows and inability to empty properly are most always pathological. Those which are greatly increased in size have been proven to be the site of disease also. The case of the fair shadow with fair or good emptying and without stones is the most difficult problem. We tend to call these normal and search for other pathology to account for the symptoms. Check-up examinations after medical management are suggested.

It has been the experience of numerous observers that cholecystectomy for calculus gall-bladder disease has given the best postoperative results.[2,4,7] In general, the end results tend to be better as the pathological changes become more marked. We have not felt justified in attempting to state that a gall-bladder is diseased because it exhibits some minor variation in function from that which is thought to be normal. We have been content to err occasionally on the side of conservatism.

Conclusions

1. X-ray examination of the gall-bladder has given us accurate information as to the condition of this organ in 94 per cent of 461 operated cases.

2. The diagnosis of normal gall-bladder has proven the greatest source of error as normal function occurs occasionally when disease is present.

3. Duodenal and pyloric ulcer may interfere with the cholecystographic response.

4. Many conditions can simulate gall-bladder disease.

5. Unrelated lesions often accompany disease of the gall-bladder and it must be determined if possible, whether such lesions might not be the principle cause of symptoms.

6. As removal of the non-calculus gall-bladder is much more likely to be followed by post-operative morbidity than when stones are present, we make a plea for the complete examination of the patient so as to properly evaluate the extent to which such a gall-bladder contributes to the symptoms.

7. Pathologic changes in the gall-bladder frequently accompany diverticulosis of the colon.

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Rectal Infusion

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■ Administration of fluids and relief of abdominal distention are major problems for the physician and the bedside nurse. Distention following abdominal surgery and in medical cases such as pneumonia and typhoid cause the patient much discomfort and is, therefore, of great concern to those caring for the patient.

During the past year we have been using the rectal infusion method for preventing and relieving distention. The method has become quite generally accepted at Mercy Hospital and during the past year it has been used on about four hundred abdominal surgical cases, two typhoids, several pneumonias and on other medical patients.

While comfort of the patient is of paramount importance to the nurse there are other things of greater importance to the physician. One of these, particularly in post-operative cases, is the introduction of fluid to prevent dehydration. Rectal infusion is a simple and efficient way to administer fluid as will be shown later in this paper.

The method which we refer to as rectal infusion is essentially the method introduced by McClanahan in 1921 as proctoclysis by the flush method. Similar procedures have been in use for a number of years under a variety of names. This paper serves only to emphasize the use of a simple and effective method which deserves to be used more widely.

As we have indicated, rectal infusion serves the double purpose of introducing fluids and of relieving abdominal distention. In its use for the introduction of fluids we find that patients will absorb from one to two thousand cubic centimeters of tap water or normal saline solution in the first twelve hours post-operatively, the average being about fifteen hundred cubic centimeters. In the next twelve hours from five hundred to one thousand cubic centimeters will be absorbed. Subsequently the rate of absorption will be determined by the degree of dehydration of the patient. This does not preclude the necessity of administering fluids in other ways but by using this method a moderate amount of fluid is absorbed while at the same time abdominal distention is relieved. For the first two or three days post-operatively the addition of fluid is the primary virtue of this procedure, after that it is used for the relief of distention.

Method of Procedure

The equipment needed for rectal infusion is very simple, consisting of an enema can, a No. 20 or No. 22 colon tube and a short glass connecting tube. The glass connecting tube makes it possible to determine the character of the return flow. We use tap water in most of our cases since normal saline or 5 per cent glucose do not seem to be as readily absorbed as tap water. Alkaline solutions seem to be even less easily absorbed. Hypotonic solutions are more readily absorbed than isotonic or hypertonic solutions.

A cleansing enema should be given and repeated until the water returns clear. The usual preoperative enema should suffice. The colon tube is then inserted six to eight centimeters into the rectum. The enema can, containing five hundred cubic centimeters of tap water is placed on a level with the patient's buttocks and the water allowed to flow continuously, without obstruction. If the water is being absorbed too slowly, the container may be elevated until the patient complains of pressure and then be lowered slightly. All that is needed is elevation sufficient to overcome the hydrostatic pressure of the colon. Increased pressure on mucous membrane does not increase absorption and does cause discomfort. In former methods of proctoclysis by drip or retention enemas patients were frequently uncomfortable because of the feeling of pressure in the rectum. This need not occur with rectal infusion.

When the procedure is used primarily for the relief of distention not more than five hundred cubic centimeters of fluid should be used and the container must be raised and lowered once or twice and then placed on a level with the patient's buttocks. **Flatus will be expelled easily without having to overcome the resistance of the rectal sphincter and will be replaced with fluid, which is later absorbed. We have found that medication for relief of abdominal distention, such as pitressin and prostigmine, is much more effective if administered during rectal infusion.**

The procedure is well tolerated, the tube usually being left in place for two or three days without rectal irritation or discomfort and we have used it almost continuously for as long as twelve days without complaint from the patient. The tube should be removed at least once every twelve hours to be thoroughly cleaned and well lubricated.

Nursing staffs are enthusiastic about rectal infusion as it requires a minimum of watching and does away with the need for other enemas for the relief of abdominal distention. Many postoperative patients experience difficulty in expelling the usual carminative enema and there are many soiled beds from this type of enema. This does not happen with rectal infusion. This method is equally useful in the home.

Conclusion

We feel rectal infusion has a definite place in the management of surgical and some types of medical cases. It is a simple, effective and inexpensive method of administering fluid and adds materially to the comfort and well-being of the patient.

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Unusual Tumor of Vulva

By Casimir A. Domzalski, M.D.
Detroit, Michigan

Casimir A. Domzalski, M.D.

A.B., University of Detroit, 1915. A.M., University of Detroit, 1917. M.D., University of Michigan, 1919. Attending Obstetrician, St. Francis Hospital, Hamtramck, Michigan, 1939-1940. Member of Michigan State Medical Society.

■ Feminine modesty is occasionally carried to extremes which are apt to imperil the health of the individual, and often convert a simple surgical procedure into a difficult, if not impossible task. When such modesty is combined with ignorance, the results are sometimes humorous, but oftener pathetic or tragic.



Fig. 1. Anterior view, pre-operative.

In the present case, I was called by the mother to attend M. M., an unmarried female, aged twenty-six, whose mental level was less than that of a ten-year-old child. The mother informed me that she had noticed for the past few days that the daughter had some difficulty in sitting, and that she spent an excessive amount of time in the bathroom. The patient had admitted to the mother that "something was protruding between her legs," but had not permitted the mother to see what that "something" was, until a few hours prior to my call.

Questioning of the patient elicited the information that she had difficulty and pain on defecation; that micturition was only possible when she stooped forward in a standing position; and that walking and sitting were accompanied by much pain. She was vague about the duration of her condition, admitting that it might have existed a few months, or a few years.

Because of ulceration, the tumor mass was very sensitive, and a satisfactory examination was impossible until just prior to the operation, which was performed on July 23, 1937, at the St. Francis Hospital.

Under anesthesia the main tumor mass was found to have its origin in the upper half of the right labium majus, the mons veneris and the entire left labium majus. The urethra was distorted and elongated by the weight of the tumor mass. The vagina exuded a large quantity of purulent mucus, and was found to have several strictures at different levels. Beneath the tumor mass, the perineum and the entire circum-anal area were studded with innumerable condylomata of various sizes. The anus was completely occluded by three enormous condylomata, the largest of which measured 4 cm. in diameter. These three condylomata were, no doubt, responsible for the pain on defecation.

After removal, the main tumor mass was found to measure 30 x 25 x 20 cms., and weighed 3,620 grams (approximately 8 pounds). The pathologist's diagnosis was: "Infected, ulcerating lymphohemangio-endothelioma of the labia majora, with elephantiasis."

The patient's recovery was satisfactory. Both excretory functions are now painless. The condylomata, with few exceptions, disappeared under treatment with dusting powder.

5361 McDougall Avenue

TREATMENT OF SYPHILIS

In order that there may be a central source of information with regard to studies of the intravenous drip method of treatment of syphilis ("the five-day treatment"), the American Social Hygiene Association at 50 West 50th Street, New York, has been asked to gather and to keep available information regarding this subject. The Association requests all physicians and hospitals which are planning or are now carrying on studies of experiments with this method of treatment of syphilis to send brief information regarding the following points to the Association at the above address:

1. Name of hospital or other institution.
2. Name of principal physician in charge of the intravenous drip study.
3. Type of case or cases of syphilis treated by the intravenous drip method.
4. Name of drug or drugs used.
   (a) By the intravenous drip method.
   (b) By any other method before, during or after intravenous drip therapy. Mention any specific therapy used.)
5. Routine laboratory work done on cases of syphilis treated by the intravenous drip method.
6. Usual number of hours of intravenous drip treatment per day per patient.
7. Usual number of days of intravenous drip treatment per patient.
8. Any other pertinent facts.

The Association will be glad, so far as possible, to answer inquiries regarding the intravenous drip treatment of syphilis. The Association has available to physicians, upon request, a brief pamphlet on the subject of the present status of the intravenous drip method of treatment of syphilis, written by Dr. Charles Walter Clarke, Executive Director of the Association and a member of the New York City Committee on the Intravenous Drip Treatment of Syphilis.

President's Page

"To sum up then," said J. B. S. Haldane, in "Dædalus"*, "Science is as yet in its infancy, and we can foretell little of the future save that the thing that has not been is the thing that shall be; that no beliefs, no values, no institutions are safe."

Some such thought ran through my mind as I viewed, at the Convention, the greatest scientific exhibit ever put on by the A.M.A., and tried to push out of my mind the disturbing headlines of the last edition.

War, even the preparation for an adequate defense, necessitates a certain concentration of Federal authority. Even as the House of Delegates by resolution, pledged the services of the profession and placed the machinery of the Association at the disposal of the Government, it recognized that this patriotic response might be our undoing. Here lies Danger, for as President Van Etten noted, there has been, in recent months, an invasion of Pagan ideas which would force a foreign system of medical practice on us.

As Loyal citizens we desire to serve our country as best we can. We recognize the possibility of post-war pestilence, and know that the reflection of this war in this country will create for us new responsibilities and demands. We are ready, but we will be on guard lest those who are advocating peace-time governmental regulation of our profession take advantage of this patriotic response.

Burton R. Corbus

President, Michigan State Medical Society

*Dædalus or Science and the Future (1923).

EDITORIAL

HAIL! ILLINOIS

■ The *Illinois Medical Journal* has issued a special number celebrating the one hundredth anniversary of the Illinois State Medical Society. The progress of American medicine is well exemplified by the progress of the Illinois State Medical Society. Its independent, courageous, brilliant members have been leaders in establishing the high standards of the profession and a record of their stand through the trials of organized medicine amply testifies to their sound and still progressive attitude towards medicine.

UNPREJUDICED OPINION

■ Most of the physicians of Michigan read the report of Dr. Hugo A. Freund, President of the Children's Fund of Michigan, published in May.

Following are poignant excerpts:

"***The Legislature also reduced the appropriations for sick children. This came in part from a drive for economy, which is proper enough if not carried on to the sacrifice of human welfare. It is to be noted that the cuts in these funds were excessively drastic, far out of proportion to the cuts for any other department of State government.

"The penurious attitude of the State toward the profession has placed a handicap of major importance upon those who willingly accept the obligations for the care of the underprivileged sick, but who rightfully refuse to accept the gratuitous insult contained in the new regulations imposed upon the medical profession which has never been derelict in its duty in the care of the indigent.

"As a result of this abnormal reduction, the flow of sick needy children entitled to care at State expense through our clinics has shrivelled to an insignificant stream. We have done our best to meet the need from our own funds, but its magnitude is and always has been beyond our resources; nor is it the duty of private charity.

"The duty of the State is the protection of its citizens. The health of the citizen is of primary concern to the government. To promulgate and to enforce laws governing the health of communities is a requirement well established.***"

This, coming from an independent and humanitarian agency for the care of the unfortunate, is of particular significance. To this report no one can ascribe a desire to "hijack" or to further personal interests.

How much longer the administration is to remain deaf to the righteous indignation of those who know the inhuman attitude of certain politicians toward the afflicted and crippled children remains to be seen. It is necessary that the general public be made completely aware of this "Michigan disgrace."

MONEY IN YOUR POCKET

■ The Preventive Medicine Committee of the Michigan State Medical Society has been a very active and progressive group for many years. It has been most active in stimulating and crystallizing the interest of the physicians of Michigan in the opportunities of preventive medicine.

From the beginning and particularly since the Chairmanship of Dr. L. O. Geib the Committee has advocated the necessity of County Health Units (with a doctor of medicine as Director serving in an administrative and executive position only). In spite of indifference and maneuvering on the part of some of the politically-minded health authorities, a great deal has been achieved. The stimulating counsel of such men as Vaughan, Gordon, Prichard and Byington plus a continuously active personnel has been a great factor in making preventive medicine a part of the general practitioner's thought and action and has been a protective brake on governmental absorption of this part of medical practice.

One of the most noteworthy programs was completed in 1939 resulting in the distribution of immunization schedules and cards. These cards are mailed to the parents of all new-born children and are to be kept as a permanent record of that infant's health record from birth to the

day he enters school. The parent is advised when to see his family physician for protection against whooping cough, diphtheria and small pox.

The response has been extraordinary, far beyond the most extravagant hopes of the committee and amply demonstrates that preventive medicine is and must continue to be a part of general practice.

These immunization cards are available to any physician who desires a supply. Write G. M. Byington, M.D., Department of Health, Detroit.

The thanks and congratulations of the Michigan State Medical Society are extended to this committee for their work.

PREPAREDNESS

■ If you do not equip yourself to do periodic health examinations you may find yourself as unprepared as the democracies are to the new blitzkrieg type of warfare.

Perhaps you feel that over night you can prepare yourself to evaluate satisfactorily the health of a supposedly healthy person. It won't take you quite as long as it will take the United States to build airplanes and tanks but you can't do it over night.

Survey yourself and your office equipment to determine your capability to make a complete physical examination and then begin testing your ability. The ordinary life insurance examination has been accepted by many people, both lay and medical, as a complete examination, but thoughtful consideration reveals the falsity of that premise.

For a number of years the American Medical Association has attempted to stimulate interest in complete physical examinations. It publishes blanks which are rather capable guides. It also publishes a manual on "Periodic Examinations" (obtainable from the American Medical Association, 535 North Dearborn Street, Chicago, Illinois, for twenty-five cents) which is extremely valuable.

Don't wait for the public to demand these examinations. Keep ahead of the crowd and offer it to your patients.

HENDRICKS OF KALKASKA

■ In a little Northern Michigan town of less than a thousand people Dr. H. B. Hendricks was called to attend a patient who had died from eating mushrooms. Other doctors have probably had the same experience but this man in the true spirit of his profession felt that an investigation into the reasons for death from a supposedly safe "false morel" should be determined.

He found that the poisonous properties of this mushroom were so variable, depending upon the season, that while at times it could be eaten with immunity, still at other times it produces serious morbidity and even fatality. His scientific interest did not stop because he was a country practitioner. His very excellent report was not only published in the *Journal of the American Medical Association,* but also released in the "clip sheet" in which abstracts of the most important and interesting articles are released to other publications.

Laboratories and clinics do not make a science. A true physician's mind is his laboratory; his patients, the clinic. Michigan is proud of its scientific investigators like Hendricks of Kalkaska!

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada on Saturday, January 4, 1941, at 2:00 P.M. Candidates who successfully complete the Part I examinations proceed automatically to the Part II examinations held later in the year.

Applications for admission to Group B, Part I, examinations must be on file in the Secretary's office not later than October 5, 1940.

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire Board, meeting at Cleveland, Ohio, immediately prior to the 1941 meeting of the American Medical Association.

After January 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I and Part II examinations.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, (6) Pennsylvania.

DIAMOND ANNIVERSARY—MICHIGAN STATE MEDICAL SOCIETY

Outline of General Assembly Program

Detroit, September 25, 26, 27, 1940

	Wednesday, September 25	Thursday, September 26	Friday, September 27
A. M. 9:30 to 10:00	Wallace M. Yater, M.D. Washington, D. C. Medical subject		P. A. Neal, M.D., Washington, D. C. Industrial Health subject
10:00 to 10:30	Hugh H. Young, M.D. Baltimore, Maryland Surgical subject		Henry C. Sweany, M.D. Chicago, Illinois Tuberculosis subject
10:30 to 11:00	INTERMISSION TO VIEW EXHIBITS	SEVEN SECTION MEETINGS THURSDAY MORNING	INTERMISSION TO VIEW EXHIBITS
11:00 to 11:30	Wm. S. McCann, M.D. Rochester, New York Medical subject		Samuel A. Cosgrove, M.D. Jersey City, N. J. Maternal Health subject
11:30 to 12:00	J. Deryl Hart, M.D. Durham, North Carolina Surgical subject		H. Flanders Dunbar, M.D. New York City Mental Hygiene subject
P. M. 12:00 to 12:30	(to be filled)		Speaker on Child Welfare invited
12:30 to 1:30	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS
1:30 to 2:00	Paul A. O'Leary, M.D. Rochester, Minnesota Dermatological subject	Walter Ivan Lillie, M.D. Philadelphia, Pennsylvania Ophthalmological subject	Ambrose L. Lockwood, M.D. Toronto, Ontario Surgical subject
2:00 to 2:30	John H. Musser, M.D. New Orleans, Louisiana Medical subject	John G. Downing, M.D. Boston, Massachusetts Dermatological subject	Chevalier L. Jackson, M.D. Philadelphia, Pennsylvania Otolaryngological subject
2:30 to 3:00	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS
3:00 to 3.30	Ralph M. Waters, M.D. Madison, Wisconsin Anesthesia subject	Thos. T. Mackie, M.D. New York City Medical subject	John D. Camp, M.D. Rochester, Minnesota Radiological subject
3:30 to 4:00	Charles F. McKhann, M.D. Boston, Massachusetts Pediatric subject	Joseph Stokes, Jr., M.D. Philadelphia, Pennsylvania Pediatric subject	Jacob P. Greenhill, M.D. Chicago, Illinois Obstetrical subject
4:00 to 4:30	Richard N. Pierson, M.D. New York City Obstetrical subject	Edw. Wm. Alton Ochsner, M.D. New Orleans, Louisiana Surgical subject	Reginald Fitz, M.D. Boston, Massachusetts Medical subject
4:30 to 6:00	VIEW EXHIBITS	VIEW EXHIBITS	END OF CONVENTION
6:00 to 8:00	President's Banquet	Alumni and Fraternity Dinners	
8:00 to 10:00	President's Night Rufus I. Cole, M.D. Mt. Kisco, New York	Postgraduate Convocation and Smoker	

All General Assemblies will be held in the Grand Ballroom, Book-Cadillac Hotel, Detroit.

THE 75TH ANNUAL MEETING
DETROIT — 1940

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Detroit, Michigan, on September 24, 25, 26, 27, 1940. The provisions of the Constitution and By-laws and the Official Program will govern the deliberations.

BURTON R. CORBUS, M.D., *President*
HENRY R. CARSTENS, M.D., *Chairman of The Council*
O. D. STRYKER, M.D., *Speaker.*
Attest: L. FERNALD FOSTER, M.D., *Secretary.*

SESSIONS OF THE HOUSE OF DELEGATES

TUESDAY, SEPTEMBER 24, 1940.
Book-Cadillac Hotel, Detroit

8:00 A.M. Delegates' Breakfast, English Room
9:00 A.M. First Session, Grand Ball Room
3:00 P.M. Second Session, Grand Ball Room
5:15 P.M. Special Pre-view of Exhibits
8:00 P.M. Third Session, Grand Ball Room

HOUSE OF DELEGATES, 1940

Grand Ball Room, Book-Cadillac Hotel, Detroit

Order of Business*

TUESDAY, SEPTEMBER 24, 1940

8:00 A.M. Sharp—Delegates' Breakfast, English Room

9:00 A.M. Sharp—First Session, Grand Ball Room

1. Call to order by the Speaker
2. Report of Committee on Credentials
3. Roll Call
4. Appointment of Reference Committees:
   - On Officers' Reports
   - On Reports of The Council
   - On Reports of Standing Committees
   - On Reports of Special Committees
   - On Amendments to Constitution and By-laws
   - On Resolutions
5. Speaker's Address—O. D. Stryker, M.D., Fremont
6. President's Address—Burton R. Corbus, M.D., Grand Rapids
7. President-Elect's Address—Paul R. Urmston, M.D., Bay City
8. Presentation of Emblem to Philip A. Riley, M.D., Jackson
9. Annual Report of The Council—Henry R. Carstens, M.D., Detroit, Chairman
10. Report of Delegates to American Medical Association—Henry A. Luce, M.D., Detroit, Chairman
11. Resolutions**
12. Reports of Standing Committees:
    - (a) Legislative Committee
    - (b) Representatives to Joint Committee on Health Education
    - (c) Committee on Distribution of Medical Care
    - (d) Medical Legal Committee
    - (e) Postgraduate Medical Education Committee
    - (f) Public Relations Committee
    - (g) Ethics Committee
    - (h) Preventive Medicine Committee
      - Cancer
      - Child Welfare
      - Iodized Salt
      - Heart and Degenerative Diseases
      - Maternal Health
      - Mental Hygiene
      - Syphilis Control
      - Industrial Health
      - Tuberculosis
13. Reports of Special Committees:
    - (a) Committee on Nurses Training Schools
    - (b) Conference Committee on Pre-Licensure Medical Education
    - (c) Membership Committee
    - (d) Radio Committee
    - (e) Advisory Committee to Woman's Auxiliary
    - (f) Scientific Work Committee

Recess

TUESDAY, SEPTEMBER 24, 1940

3:00 P.M. Sharp—Second Session—Grand Ball Room

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Unfinished Business
4. New Business**
5. Reports of Reference Committees:
   - (a) On Officers' Reports
   - (b) On Reports of The Council
   - (c) On Reports of Standing Committees
   - (d) On Reports of Special Committees
   - (e) On Amendments to Constitution and By-laws
   - (f) On Resolutions

5:15 to 6:30 P.M. Recess for Special Preview of Exhibits

*See the Constitution, Article IV, and the By-laws, Chapter 3, on the "House of Delegates."

**All resolutions, special reports, and new business shall be presented in duplicate.

TUESDAY, SEPTEMBER 24, 1940

3:00 P.M. Sharp—Third Session, Grand Ball Room

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Supplementary Report from The Council
4. Supplementary Reports from Reference Committees
5. Elections:
   (a) Councilors:
   2nd District—J. E. McIntyre, M.D., Lansing—incumbent
   3rd District—Wilfrid Haughey, M.D., Battle Creek—incumbent
   15th District—Otto O. Beck, M.D., Birmingham—incumbent
   16th District—A. S. Brunk, M.D., Detroit—incumbent
   (b) Delegates to American Medical Association
   Henry A. Luce, M.D., Detroit, incumbent
   T. K. Gruber, M.D., Eloise, incumbent
   Frank E. Reeder, M.D., Flint, incumbent
   Claude R. Keyport, M.D., Grayling, incumbent
   Alternate Delegates to American Medical Association
   R. H. Denham, M.D., Grand Rapids, incumbent
   Carl F. Snapp, M.D., Grand Rapids, incumbent
   C. S. Gorsline, M.D., Battle Creek, incumbent
   (c) President-elect
   (d) Speaker of House of Delegates
   (e) Vice Speaker of House of Delegates

Adjournment.

HOUSE OF DELEGATES OF THE MICHIGAN STATE MEDICAL SOCIETY, 1940

O. D. Stryker, M.D., Fremont, *Speaker*
J. J. O'Meara, M.D., Jackson, *Vice Speaker*
L. Fernald Foster, M.D., Bay City, *Secretary*
Names of Alternates appear in italics

1. **Allegan**
   O. H. Stuch, M.D., Otsego
   O. D. Hudnutt, M.D., Plainwell
2. **Alpena-Alcona-Presque Isle**
   W. E. Nesbitt, M.D., Alpena
   A. R. Miller, M.D., Harrisville
3. **Barry**
   R. B. Harkness, M.D., Hastings
   R. G. Finnie, M.D., Hastings
4. **Bay-Arenac-Iosco-Gladwin**
   C. L. Hess, M.D., 208 Davidson Bldg., Bay City
   V. H. Dumond, M.D., Shearer Bldg., Bay City
   Fred Drummond, M.D., Kawkawli
   J. C. Grosjean, M.D., 8th and Sheridan Sts., Bay City
5. **Berrien**
   Wm. Ellet, M.D., Benton Harbor
   Fred Henderson, M.D., Niles
6. **Branch**
   R. L. Wade, M.D., Coldwater
   Samuel Schultz, M.D., Coldwater
7. **Calhoun**
   A. T. Hafford, M.D., Albion
   Harvey Hansen, M.D., 1102 Central Tower, Battle Creek
   A. A. Humphrey, M.D., Leila Hosp., Battle Creek
   Geo. W. Slagle, M.D., 1506 Central Tower, Battle Creek



The Edison Laboratory

8. **Cass**
S. L. Loupee, M.D., Dowagiac
K. C. Pierce, M.D., Dowagiac

9. **Chippewa-Mackinac**
B. T. Montgomery, M.D., Sault Ste. Marie
Geo. Conrad, M.D., Sault Ste. Marie

10. **Clinton**
G. H. Frace, M.D., St. Johns
None named.

11. **Delta-Schoolcraft**
W. A. Lemire, M.D., Escanaba
Otto S. Hult, M.D., Escanaba

12. **Dickinson-Iron**
W. H. Alexander, M.D., Iron Mountain
E. B. Andersen, M.D., Iron Mountain

13. **Eaton**
Paul Engle, M.D., Olivet
F. W. Sassaman, M.D., Charlotte

14. **Genesee**
Frank E. Reeder, M.D., Genesee Bank Building, Flint
Geo. J. Curry, M.D., Genesee Bank Building, Flint
Donald R. Brasie, M.D., 907 Citizens Bank Bldg., Flint
Henry Cook, M.D., 400 Sherman Bldg., Flint
Don Wright, M.D., 403 W. Court Street, Flint
A. Dale Kirk, M.D., 300 East First Street, Flint
Robert Scott, M.D., 1215 Detroit Street, Flint

15. **Gogebic**
W. E. Tew, M.D., Bessemer
D. C. Eisele, M.D., Ironwood

16. **Grand Traverse-Leelanau-Benzie**
I. H. Zielke, M.D., Traverse City
C. E. Lemen, M.D., Traverse City

17. **Gratiot-Isabella-Clare**
M. G. Becker, M.D., Edmore
W. E. Barstow, M.D., St. Louis

18. **Hillsdale**
Luther W. Day, M.D., Jonesville
O. G. McFarland, M.D., North Adams

19. **Houghton-Baraga-Keweenaw**
J. H. Kirton, M.D., Calumet
Alfred LaBine, M.D., Houghton

20. **Huron-Sanilac**
W. B. Holdship, M.D., Ubly
C. W. Oakes, M.D., Harbor Beach

21. **Ingham**
C. F. DeVries, M.D., 320 Townsend, Lansing
R. S. Breakey, M.D., City Nat. Bldg., Lansing
T. I. Bauer, M.D., 301 Seymour, Lansing
W. H. Welch, M.D., 428 W. Michigan, Lansing
O. H. Bruegel, M.D., Abbott Bldg., East Lansing
E. H. Foust, M.D., 428 W. Allegan, Lansing

22. **Ionia-Montcalm**
W. L. Bird, M.D., Greenville
C. H. Peabody, M.D., Lake Odessa

23. **Jackson**
Philip A. Riley, M.D., 500 S. Jackson St., Jackson
J. J. O'Meara, M.D., 608 Peoples Nat. Bank Bldg., Jackson
H. A. Brown, M.D., 701 Reynolds Bldg., Jackson
C. S. Clarke, M. D., 605 Dwight Block, Jackson

24. **Kalamazoo**
F. M. Doyle, M.D., American Nat. Bank Bldg., Kalamazoo
I. W. Brown, M.D., City Hall, Kalamazoo
L. W. Gerstner, M.D., 420 John Street, Kalamazoo
Keith Bennett, M.D., Amer. Nat. Bank Bldg., Kalamazoo

25. **Kent**
A. V. Wenger, M.D., 302 Loraine Bldg., Grand Rapids
C. F. Snapp, M.D., Medical Arts Bldg., Grand Rapids
A. B. Smith, M.D., Metz Bldg., Grand Rapids
Geo. Southwick, M.D., 55 Sheldon Avenue, SE, Grand Rapids
Paul Kniskern, M.D., Medical Arts Bldg., Grand Rapids
Wm. Bettison, M.D., Medical Arts Bldg., Grand Rapids
A. J. Baker, M.D., Ashton Bldg., Grand Rapids
Leon DeVel, M.D., Metz Bldg., Grand Rapids
J. D. Miller, M.D., 612 Medical Arts Bldg., Grand Rapids
Wm. J. Butler, M.D., Medical Arts Bldg., Grand Rapids

26. **Lapeer**
D. J. O'Brien, M.D., Lapeer
H. M. Best., M.D., Lapeer

27. **Lenawee**
A. W. Chase, M.D., Adrian
Bernard Patmos, M.D., Adrian

28. **Livingston**
D. C. Stephens, M.D., Howell
D. A. Cameron, M.D., Brighton

29. **Luce**
Henry E. Perry, M.D., Newberry
R. E. Spinks, M.D., Newberry

30. **Macomb**
D. Bruce Wiley, M.D., Utica
A. B. Bower, M.D., Armada

31. **Manistee**
E. A. Oakes, M.D., Manistee
None named.

32. **Marquette-Alger**
V. Vandeventer, M.D., Ishpeming
R. A. Burke, M.D., Palmer

33. **Mason**
Robert Farrier, M.D., Ludington
(No alternate named)

34. **Mecosta-Osceola**
G. H. Yeo, M.D., Big Rapids
P. B. Kilmer, M.D., Reed City

35. **Menominee**
H. T. Sethney, M.D., Menominee
S. C. Mason, M.D., Menominee

36. **Midland**
Ed. H. Meisel, M.D., Midland
None named.

37. **Monroe**
D. C. Denman, M.D., Monroe
J. H. McMillin, M.D., Monroe

38. **Muskegon**
E. O. Foss, M.D., 502 Muskegon Bldg., Muskegon
E. N. D'Alcorn, M.D., Michigan Theatre Building, Muskegon
L. E. Holly, M.D., 876 North Second St., Muskegon
S. W. Hartwell, M.D., 706 Hackley Union Bk. Bldg., Muskegon

39. **Newaygo**
O. D. Stryker, M.D., Fremont
W. H. Barnum, M.D., Fremont

40. Northern Michigan
Wm. S. Conway, M.D., Petoskey
Walter E. Larson, M.D., Levering

41. Oakland
Richard Olsen, M.D., St. Joseph Mercy Hospital, Pontiac
C. T. Ekelund, M.D., Riker Bldg., Pontiac
Geo. A. Sherman, M.D., Oakland T. B. Sanatorium, Pontiac
Harold Roehm, M.D., Wabeek Bldg., Birmingham
A. D. Riker, M.D., Riker Bldg., Pontiac
Robert Baker, M.D., People's Bank Bldg., Pontiac

42. Oceana
Merle G. Wood, M.D., Hart
Wm. Heard, M.D., Pentwater

43. O.M.C.O.R.O.
C. R. Keyport, M.D., Grayling
C. G. Clippert, M.D., Grayling

44. Ontonagon
E. J. Evans, M.D., Ontonagon
S. H. Rubinfield, Ontonagon

45. Ottawa
A. E. Stickley, M.D., Coopersville
R. H. Nichols, M.D., Holland

46. Saginaw
C. E. Toshach, M.D., 333 S. Jefferson, Saginaw
S. A. Sheldon, M.D., 124 S. Jefferson, Saginaw
L. C. Harvie, M.D., 405 Weichmann Bldg., Saginaw
F. O. Novy, M.D., 420 S. Jefferson, Saginaw

47. Shiawassee
A. L. Arnold, Jr., M.D., Owosso
I. W. Greene, M.D., Owosso

48. St. Clair
A. L. Callery, M.D., Port Huron
None named.

49. St. Joseph
John W. Rice, M.D., Sturgis
R. A. Springer, M.D., Centerville

50. Tuscola
T. E. Hoffman, M.D., Vassar
E. C. Swanson, M.D., Vassar

51. Van Buren
W. R. Young, M.D., Lawton
Edwin Terwilliger, M.D., S. Haven

52. Washtenaw
J. A. Wessinger, M.D., 339 E. Washington, Ann Arbor
Dean W. Myers, M.D., 1917 Washtenaw, Ann Arbor
L. J. Johnson, M.D., 225 E. Liberty, Ann Arbor
C. L. Washburn, M.D., St. Joseph Mercy Hospital, Ann Arbor
L. E. Knoll, M.D., 227 E. Liberty, Ann Arbor
R. W. Teed, M.D., 410 Highland Road, Ann Arbor

53. Wayne
Ralph H. Pino, M.D., 1001 David Whitney Bldg.
R. L. Novy, M.D., 662 Maccabees Bldg.
E. D. Spalding, M.D., 662 Maccabees Bldg.
J. M. Robb, M.D., 641 David Whitney Bldg.
T. K. Gruber, M.D., Eloise Hospital, Eloise
W. D. Barrett, M.D., 311 David Whitney Bldg.
H. F. Dibble, M.D., 1317 David Whitney Bldg.
A. E. Catherwood, M.D., 1337 David Whitney Bldg.
Wm. J. Stapleton, Jr., M.D., 641 David Whitney Bldg.
R. M. McKean, M.D., 1515 David Whitney Bldg.
Henry A. Luce, M.D., 629 David Whitney Bldg.
R. C. Jamieson, M.D., 1309 David Whitney Bldg.
Chas. S. Kennedy, M.D., 10 Peterboro
G. C. Penberthy, M.D., 1515 David Whitney Bldg.
L. J. Hirschman, M.D., 7815 E. Jefferson Ave.
W. B. Cooksey, M.D., 62 W. Kirby
G. S. Bates, M.D., 1563 David Whitney Bldg.
C. E. Umphrey, M.D., 13331 Livernois
C. E. Dutchess, M.D., c/o Parke, Davis & Co.
H. W. Plaggemeyer, M.D., 1701 David Whitney
C. E. Simpson, M.D., 1210 Kales Bldg.
Allan McDonald, M.D., 1340 Maccabees Bldg.
H. J. Kullman, M.D., 1515 David Whitney Bldg.
P. L. Ledwidge, M.D., 1838 David Whitney Bldg.
C. K. Hasley, M.D., 1429 David Whitney Bldg.
L. W. Hull, M.D., 1701 David Whitney Bldg.
A. F. Jennings, M.D., 7815 E. Jefferson
G. L. McClellan, M.D., 2501 W. Grand Blvd.
C. F. Vale, M.D., 1306 David Whitney Bldg.
L. T. Henderson, M.D., 13038 E. Jefferson
Wm. S. Reveno, M.D., 951 Fisher Bldg.
C. K. Valade, M.D., 1604 Eaton Tower
S. W. Insley, M.D., 1302 Maccabees Bldg.
C. F. Brunk, M.D., 7815 E. Jefferson
R. V. Walker, M.D., 1320 David Whitney
H. L. Morris, M.D., 866 Fisher Bldg.

J. A. Kasper, M.D., Herman Kiefer Hospital
E. R. Witwer, M.D., Harper Hospital
R. C. Connelly, M.D., 1709 David Whitney Bldg.
R. A. C. Wollenberg, M.D., 938 David Whitney Bldg.
H. L. Clark, M.D., 634 Maccabees Bldg.
Wm. P. Woodworth, M.D., 2501 W. Grand Blvd.
D. I. Sugar, M.D., 17 Brady
M. H. Hoffmann, M.D., Eloise Hospital, Eloise
H. B. Fenech, M.D., 10 Peterboro
H. W. Peirce, M.D., 1652 David Whitney Bldg.
S. E. Gould, M.D., Eloise Hospital, Eloise
F. W. Hartman, M.D., Henry Ford Hospital
B. H. Priborsky, M.D., 742 Maccabees Bldg.
F. C. Witter, M.D., 2905 W. Grand Blvd.
Meshel Rice, M.D., 2501 W. Grand Blvd.
W. B. Harm, M.D., 5884 W. Vernor Highway
Arch Walls, M.D., 12065 Wyoming
J. B. Rieger, M.D., 1265 David Whitney Bldg.
V. N. Butler, M.D., 559 Fisher Bldg.
L. W. Shaffer, M.D., 1368 Yorkshire, Grosse Pointe Park
C. L. Candler, M.D., 2006 Eaton Tower
L. O. Geib, M.D., 3528 Van Dyke
C. J. Jentgen, M.D., 2501 W. Grand Blvd.
L. J. Gariepy, M.D., 16401 Grand River
E. H. Lorentzen, M.D., 11702 Grand River
J. H. Law, M.D., Grace Hospital
C. S. Ratigan, M.D., 22340 Michigan, Dearborn
Wm. N. Braley, M.D., 12897 Woodward
E. D. King, M.D., 5455 W. Vernor Highway
A. V. Forrester, M.D., 16491 Woodward, Highland Park
E. W. Fitzgerald, M.D., 932 Maccabees Bldg.
W. A. Chipman, M.D., 14920 Grand River
George A. Troester, M.D., 16131 Mack
Wm. Hamilton, M.D., 13836 Woodward, Highland Park
H. E. Bagley, M.D., 12922 W. Warren, E. Dearborn
G. L. Coan, M.D., 114 Maple St., Wyandotte

54. Wexford-Kalkaska-Missaukee
W. Joe Smith, M.D., Cadillac
John F. Gruber, M.D., Cadillac

MICHIGAN MEDICAL SERVICE

FACTS are now available to show the practical results of the operation of a medical service plan under professional supervision.

A tabulation of the first two months' experience of the *Surgical Benefit Plan* and the *Medical Service Plan* of Michigan Medical Service makes available some greatly desired factual data. An accumulation of such valuable information will be an important by-product of Michigan Medical Service.

Enrollment

Within the first eleven weeks of operation, 63,138 persons enrolled in Michigan Medical Service. Of these, 1,352 were enrolled in the Medical Service Plan and 61,786 in the Surgical Benefit Plan.

The following table indicates the enrollment and the firms whose employees are subscribers to Michigan Medical Service:

1. Medical	1,352
Michigan State Highway Department—throughout state	
2. Surgical	61,786
Ford Motor Company—Dearborn, Highland Park, Ypsilanti, Tecumseh, Saline, Iron Mountain, and L'Anse; People's Outfitting—Detroit, Dearborn; Ann Arbor News—Ann Arbor; Saginaw News—Saginaw; Ford Trade School—Dearborn; Booth Newspapers—Detroit; Bay City Times—Bay City; Kalamazoo Gazette—Kalamazoo; Muskegon Chronicle—Muskegon; Grand Rapids Press—Grand Rapids; Dean and Harris Ford Sales—Lansing; Symons Brothers—Saginaw; College Drug—East Lansing; Department of Public Instruction—Lansing; Manufacturers' Life Insurance Co.—Saginaw; Unemployment Compensation Commission — throughout state; Stewart Hartshorn & Co.—Muskegon	
TOTAL	63,138

It can be noted that Michigan Medical Service is enrolling subscribers throughout the state and that doctors in practically every locality may have patients who are subscribers.

Payments for Services

Approximately one out of every eighteen doctors in the state has been sent a check by Michigan Medical Service for services rendered to subscribers.

During the first two months, a total of $32,161.76 was paid to doctors *within less than thirty days* after receipt of their completed Monthly Service Reports.

Particular attention is called to the importance of completing the Monthly Service Report carefully and in detail in order to avoid delay in payments because of insufficient information. For each service rendered, doctors received an aver-

MICHIGAN MEDICAL SERVICE REGISTRATION HONOR ROLL

Members of our County Medical Societies are recognizing the great social value of Michigan Medical Service, and have indicated their belief and their desire to participate by a high percentage of registration with Michigan Medcal Service.

Below is listed the "Honor Roll," those societies with a registration (as of June 19, 1940) of 75 per cent or more of their membership:

100 per cent

Barry
Mason

90 to 99 per cent

Manistee

80 to 89 per cent

Bay-Arenac-Iosco-Gladwin
Clinton
Delta-Schoolcraft
Dickinson-Iron
Gratiot-Isabella-Clare
Hillsdale
Ingham
Mecosta-Osceola-Lake
Menominee
Midland
Newaygo
Ontonagon
St. Joseph
Tuscola

75 to 79 per cent

Kent
Lenawee
Monroe
Northern Michigan
Oceana
O.M.C.O.R.O.
Ottawa
Saginaw

Additional registrations being received daily will soon place other societies on the Honor Roll. An Application for Registration may be found on page 504 for the convenience of physicians. Merely remove the blank, sign and return it to 2014 Olds Tower, Lansing.

age payment of $40.00. This average includes all minor services; office, home, and hospital calls; and major operations.

Know Your Medical Plan

Doctors of medicine should know the exact provisions of the Medical Service Plan and of the Surgical Benefit Plan in order that they may do their part to make the administration successful. Patients expect their doctors to know all about the plans sponsored by the medical profession.

Medical Service Plan: Subscribers to the Medical Service Plan may receive services of doctors of medicine in the home and office as well as medical and surgical care in the hospital —including consultation, x-ray, laboratory, and anesthesia service. Obstetrical care is included after twelve months of membership.

For tuberculosis, venereal diseases and mental disorders, only those services necessary to establish a diagnosis will be provided. For cancer and malignant growths, services necessary to establish a diagnosis and the initial operative or radiologic treatment will be provided.

Surgical treatment of appendicitis and hernia is not included if the subscriber has had one or more attacks previous to the date of his certificate.

Medical services for alcoholism, drug addiction, self-inflicted injuries and Workmen's Compensation cases are not benefits under Michigan Medical Service. Nor are drugs, materials, appliances or supplies to be paid for by Michigan Medical Service.

Surgical Benefit Plan: Subcribers to the Surgical Benefit Plan are entitled to surgical and x-ray services only *when a bed patient in the hospital.* Obstetrical care in the hospital after twelve months' membership is also provided.

Surgical services include operative and cutting procedures for the treatment of disease and injuries, and the treatment of fractures and dislocations (when performed in a hospital). Strictly medical or diagnostic services in the hospital or surgical care in the home or office are not included as benefits of this partial service plan.

X-ray services include diagnostic x-rays not to exceed $15.00 during a subscription year for each person entitled to benefits.

Billing Procedure

A fundamental principle adhered to in the development of Michigan Medical Service was that the paper-work to be required of physicians should be kept at a minimum.

After completing an Application for Registration with Michigan Medical Service, which indicates the doctor's willingness to coöperate and to provide services for subscribers, there are only two reports for the doctor:

1. *Initial Service Report,* which is the statement sent by the doctor notifying Michigan Medical Service that a subscriber has requested services.

   This Report makes it possible for the doctor to verify that the patient is in good standing and eligible for his services.

   Be sure that an Initial Service Report is sent to the Medical Advisory Board of Michigan Medical Service in Detroit for each patient for whom services are to be paid by Michigan Medical Service.

2. *Monthly Service Report,* which is the itemized bill for services rendered.

   This Report is sent at the completion of services for a patient, but not later than the end of each month, to the Medical Advisory Board for approval and payment by Michigan Medical Service.

   All information requested in this Report should be filled in carefully.

   A monthly Service Report should be sent at the completion of services for a patient-subscriber, but not later than the end of each month, to the Medical Advisory Board for approval and payment by Michigan Medical Service.

Medical Advisory Boards

The Medical Advisory Boards in all districts are completed. All county medical societies, except one, have certified their representatives to the Boards. The chairmen and members of the Boards to date are as follows:

First District:
- Harold Kullman, M.D., Detroit, chairman
- Roy D. McClure, M.D., Detroit
- H. E. Bagley, M.D., Dearborn
- Carl S. Ratigan, M.D., Dearborn
- A. V. Forrester, M.D., Detroit

Second District:
- Milton Shaw, M.D., Lansing, chairman
- Thomas Wilensky, M.D., Eaton Rapids
- A. W. Strom, M.D., Hillsdale
- H. A. Brown, M.D., Jackson

Third District:
- Harvey Hansen, M.D., Battle Creek, chairman
- R. L. Wade, M.D., Coldwater
- Aben Hokeman, M.D., Constantine

Fourth District:
J. C. Maxwell, M.D., Paw Paw, chairman
W. R. Vaughan, M.D., Plainwell
Donald W. Thorup, M.D., Benton Harbor
S. L. Loupee, M.D., Dowagiac
L. W. Gerstner, M.D., Kalamazoo

Fifth District:
A. V. Wenger, M.D., Grand Rapids, chairman
T. H. Cobb, M.D., Woodland
V. L. VanDuzen, M.D., Belding
L. Paul Ralph, M.D., Grand Rapids
R. Nichols, M.D., Holland

Sixth District:
A. L. Arnold, Jr., M.D., Owosso, chairman
T. Y. Ho., M.D., St. Johns

Seventh District:
T. H. Cooper, M.D., Port Huron, chairman
W. B. Holdship, M.D., Ubly
H. B. Zemmer, M.D., Lapeer

Eighth District:
T. E. Hoffman, M.D., Vassar, chairman
W. E. Barstow, M.D., St. Louis
J. H. Sherk, M.D., Midland
W. K. Anderson, M.D., Saginaw

Ninth District:
W. J. Smith, M.D., Cadillac, chairman
E. F. Sladek, M.D., Traverse City
E. A. Oakes, M.D., Manistee
Gilbert Saltonstall, Charlevoix

Tenth District:
Fred Drummond, M.D., Kawkawlin, chairman
M. A. Martzowka, M.D., Roscommon
Harold Kessler, M.D., Alpena

Eleventh District:
Robert Farrier, M.D., Ludington, chairman
Glenn Grieve, M.D., Big Rapids
D. R. Boyd, M.D., Muskegon
W. H. Barnum, M.D., Fremont
Wm. M. Lemke, M.D., Shelby

Twelfth District:
F. J. Moloney, M.D., Sault Ste. Marie, chairman
A. H. Miller, M.D., Gladstone
G. F. Swanson, M.D., Newberry
A. K. Bennett, M.D., Marquette

Thirteenth District:
W. S. Jones, M.D., Menominee, chairman
D. R. Smith, M.D., Iron Mountain
D. C. Eisele, M.D., Ironwood
E. J. Evans, M.D., Ontonagon
Maurice Kadin, M.D., Calumet

Fourteenth District:
S. L. LaFever, M.D., Ann Arbor, chairman
A. W. Chase, M.D., Lenawee
H. G. Huntington, M.D., Howell
E. C. Long, M.D., Monroe
H. B. Britton, M.D., Ypsilanti

Fifteenth District:
Clifford Ekelund, M.D., Pontiac, chairman
R. W. Ullrich, M.D., Mt. Clemens

Registration of Doctors

As of June 6, 3,082 doctors of medicine had completed their Applications for Registration with Michigan Medical Service. Applications are being received daily to add to this total.

The splendid coöperation of doctors throughout Michigan in making Michigan Medical Service possible has already gained increased good will from employers and employees who have indicated a strong belief in a medical plan sponsored by the medical profession.

The following Table I shows the distribution according to type of practice of the doctors of medicine registered with Michigan Medical Service as compared with the distribution of doctors in private practice in the State of Michigan:

TABLE I. DISTRIBUTION OF DOCTORS OF MEDICINE REGISTERED WITH MICHIGAN MEDICAL SERVICE

According to Type of Practice

Type of Practice	Doctors Registered with Michigan Medical Service		Doctors in Private Practice in Michigan	
	Number	Per Cent	Number	Per Cent
General Practitioners	1,372	49.7	3,103	62.6
Devoting Special Attention	670	24.3	849	17.1
Total General Practitioners and Special Attention	2,042	74.0	3,952	79.7
Limited Specialists	717	26.0	1,006	20.3
Known Type of Practice	2,759	100.0	4,958	100.0
Type of Practice Unknown	343			
TOTAL	3,082		4,958	

Continued Success

The continued success of Michigan Medical Service is dependent on the sustained and sympathetic coöperation of doctors of medicine.

Support of the medical service plan sponsored by the Michigan State Medical Society should be a responsibility of every doctor of medicine in Michigan. This means that every doctor should strive to help improve the functions and procedures of Michigan Medical Service and to inform all persons in his sphere of influence of the purposes and provisions of Michigan Medical Service.

The importance of a successful medical service plan to the medical profession and the public is reflected in the steady growth of medical service plans under sponsorship of medical societies. In nineteen states, medical service plans are in operation or are proposed. At present, twenty-five medical service plans sponsored by medical societies are in operation.

A.M.A. Would Coördinate Medical Service Plan

The following resolution on Medical Service plans was presented at the recent meeting of the A.M.A. House of Delegates, New York, by the Michigan Delegates:

"Whereas, Medical societies in more than eighteen states have medical service plans in operation or in an advanced stage of development; and

"Whereas, It is of the utmost importance that organized medicine maintain a close and sympathetic interest in the administration and policies of medical service plans; and

"Whereas, There is need for uniformity in the standards of such plans and in the methods of collecting actuarial data; and

"Whereas, There are indications, if medical service plans do not have the benefit of coördinated leadership, that agencies other than medical may assume the direction of such plans; therefore be it

"Resolved, That the House of Delegates of the American Medical Association request the Board of Trustees to direct the Bureau of Medical Economics and the Committee on Medical Care to take appropriate steps toward the coördination of medical service plans and to arrange for the collection of information and experience that may be useful in developing and maintaining sound practices."

The Reference Committee on legislation of public relations of the A.M.A. House of Delegates presented the following report which was unanimously approved:

"Your reference committee recommends the approval by the House of Delegates of the resolution presented by Dr. L. G. Christian, Michigan, relative to the coördination of medical service plans. It recommends that the Board of Trustees be requested to direct the Bureau of Medical Economics to collect experience data and other pertinent information concerning prepayment medical care arrangements in order that sound practices may be developed and maintained, and to take steps looking to the coördination of medical service plans. Your reference committee also recommends that the House of Delegates reaffirm the principles pertaining to medical service plans previously adopted and urges the acceptance and application by all medical societies of the principles that prepayment group medical arrangements shall be controlled by the medical profession and that medical services be excluded from all group hospitalization plans but that, if the inclusion of special medical services are deemed necessary, the cost of such services be paid for in cash by the group hospitalization corporation directly to the insured persons.

"Your reference committee suggests the importance of complete and accurate data in order that the intent of the resolution may be realized. It is recommended, therefore, that the constituent state medical associations of the states in which medical care plans are now operating or in which such plans may be formed undertake to secure the full coöperation of such medical care organizations with the Bureau of Medical Economics."

APPLICATION FOR REGISTRATION with MICHIGAN MEDICAL SERVICE

....., 1940

To Michigan Medical Service:

I am a doctor of medicine, duly licensed to practice in the State of Michigan, willing to provide medical services under the medical service plan of Michigan Medical Service, a non-profit corporation, and I hereby apply for registration thereunder.

I agree to abide by the Articles of Incorporation, By-Laws, and the Regulations of Michigan Medical Service, and amendments thereto, in matters relating to the Michigan Medical Service plan, and the same are made a part hereof.

I agree to furnish reports of services rendered to patients under the medical service plan of Michigan Medical Service, to accept compensation for such services in accordance with the regulations of Michigan Medical Service, and, unless permitted by these regulations, to make no direct charge to such patients for services rendered under the Michigan Medical Service plan.

No parties other than myself or Michigan Medical Service shall have any right as the result of any agreement between myself and Michigan Medical Service.

It is understood that I may at any time discontinue participation in the Michigan Medical Service plan by giving fifteen days' notice in writing to Michigan Medical Service.

.....M.D.

My office address to which all communications from Michigan Medical Service are to be sent is:

....

(Please print or typewrite name) (Street and number) (City or town)

Physicians who are NOT members of the Michigan State Medical Society please enclose $5.00, which is the per capita payment made by the Michigan State Medical Society on behalf of members.

If you have not already signed your Application for Registration with Michigan Medical Service, detach this copy, sign, and return to Michigan Medical Service, 2014 Olds Tower, Lansing, Michigan.

MEDICO-LEGAL EVIDENCE*

By L. M. Ford, LL.B., J.D.

THE second rule of evidence is that, the treatment of the accused in any given case must be judged by the standards of the school of medicine in which he practices. This rule follows logically from the nature of the understanding of physician. He does not pose before his patients as a miracle worker but simply as a man of science who will undertake to apply the principles of that science to the treatment of disease.

A Case in Point

The true theory of this rule is clearly set forth in an opinion of the Supreme Court of Connecticut reversing a judgment against a physician who practiced in the homeopathic school of medicine. The controversy related to the treatment of an eye and during the trial the court admitted the testimony of physicians belonging to the regular school of medicine and refused to instruct the jury that they were to judge the accused only by the standards of his own school. The court says: "In the absence of special contract physicians and surgeons, by holding themselves out to the world as such, impliedly contract that they possess the reasonable and ordinary qualifications of their profession. If there are distinct and different schools of practice, and a physician of one of those schools is called in, his treatment is to be tested by the general doctrines of his school, and not by those of other schools. It is to be presumed that the parties so understood it. If the defendant adopted the treatment of his own particular school, which he publicly professed and practiced and the medical testimony offered by the plaintiff related to treatment prescribed by a different school, the jury should have been told that the relative merits of the two schools were in no sense before them for their consideration; that, so far as the defendant was to be judged by either, it was by the tenets, rules, principles and practices of his own school, not by those of another; and that, if the defendant adopted the treatment laid down by his own school the fact that another school prescribed another treatment tended in no way to show that the defendant was chargeable with lack of skill or negligence."

Reversal of Judgment

The Supreme Court of Minnesota, in reversing a judgment against a physician for civil malpractice, discussed this rule of evidence in a very thorough manner as follows: "The plaintiff next called as an expert witness, was Dr. Gray, a physician and surgeon belonging to what is known as the homeopathic school of medicine, and proposed to have him give his opinion, based upon the plaintiff's testimony, whether defendant's treatment of the case was proper. Defendant belongs to what is known as the allopathic or regular school of medicine, and was entitled to have his treatment tested by the rules and principles of that school and not of some other school. Objections having been made on this ground to the competency of Dr. Gray as an expert, he, on his preliminary examination, testified that there was a decided difference between the rules and principles of the two schools as respects the practice of medicine, but not as respects surgery. When inquired of as to whether the two schools differed as to their treatment of sepsis, his testimony was, as nearly as we can understand it, that they have the same rules in regard to the treatment of sepsis, connected with surgery; but where the condition of sepsis has developed a diseased condition, it becomes a question of disease and not surgery, and in such case the rules of treatment of the two schools of medicine would be entirely different. Upon the question of Dr. Gray's competency, defendant's counsel offered to introduce other professional testimony to show that the two schools are hostile to each other in their rules as to the treatment of sepsis, even in cases connected with surgery. The Court excluded this evidence, and permitted Dr. Gray to testify as an expert, saying that perhaps the offered evidence may be admitted later. We think this was in error. The question of the competency of the witness to testify as an expert was one for the court and not for the jury, and the defendant should have been permitted to present to the court on the preliminary examination all competent evidence on the question. The competency of the witness did not depend wholly upon his knowledge or skill as a physician or surgeon, but also upon the question whether he would apply the correct

*This article is Part II in the second of a series of authoritative discussions on medico-legal problems written by Mr. Ford, Attorney for the Medical Protective Company, Wheaton, Illinois.

rules and principles in giving his opinion as to the defendant's treatment of the deceased. It is true that the witness testified that his course of instruction had compassed the field of the allopathic course of study, but this would not help matters if he applied the wrong rules and principles to defendant's treatment. He may have, and probably did, give his testimony as to the propriety of this treatment upon the assumption that the rules and principles of the two schools were the same in a case of sepsis connected with surgery, but, if he was mistaken in this assumption, he would be testing defendant's treatment by a wrong standard."

Where the Rule Is Applicable

This rule of evidence is only applicable in cases where the treatment of one who is a follower of a recognized school of medicine is on trial. The defendant invoking the protection of the rule must show to the court that the principles of treatment which he applied are the tenets of some approved system of medicine. In affirming a judgment against a "magnetic healer" the Supreme Court of Wisconsin summarizes the law applicable to such a case as follows: One who holds himself out as a healer of diseases, and accepts employment as such, must be held to the duty of reasonable skill in the exercise of his vocation. Failing in this he must be liable for any damages proximately caused by unskillful treatment of his patient. This is simply applying the rule of liability to which all persons are subject who hold themselves out and accept employment as experts in any profession, art, or trade. The theory upon which an expert practices his profession, art, or trade, the sources from whence he derived his knowledge of it, the tools and appliances he employs in the exercise of his calling, his methods of work, are not controlling considerations. The courts pass no judgment upon these matters. They only look to results. Thus a person may rely entirely upon his genius or normal intuitions for some line of mechanical work, and hold himself out as an expert, and accept employment therein, without previous training or practice. The law holds him responsible if he does his work unskillfully, although he does the best he can. He takes the risk of the quality or accuracy of his genius or intuitions. On the same principles one who holds himself out as a medical expert, and accepts employment as a healer of diseases, but who relies exclusively for diagnosis and remedies upon some occult influence exerted upon him, or some mental intuition received by him when in an abnormal condition, in like manner takes the risk of the quality or accuracy of such influence or intuition. If these move him so imperfectly or inaccurately that, although he pursues the course of treatment thus pointed out or indicated to him, he fails to treat the patient with reasonable care and skill, he is liable for the consequences. The only difference in the two cases is, the mechanic works under normal and the physician acts under abnormal, influences or intuitions. The law does not concern itself with the quality of the mechanic's genius or with the reality or nature of such alleged occult influence or intuition which controls the physician in his treatment of his patient. It only takes cognizance of the question, did the practitioner or expert render the services he undertook in a reasonably skillful manner? That question, as applied to the defendants, the jury, upon sufficient proofs, have answered in the negative.

Competent Testimony

While it is true that the physicians who testified on the part of the plaintiff did not claim or pretend to know anything about the practice of magnetic healers, they were nevertheless competent, from education and experience, to testify whether or not the treatment the plaintiff underwent was proper in any case, and especially in her condition. Simply because a person claims or pretends to possess certain powers of healing peculiar to himself is no reason why other persons who do not claim such powers, but who know from education and practice, are not competent to judge whether the treatment administered was negligently or carelessly done. Otherwise any unprofessional person might undertake to treat a certain disorder, and—if defendant's position be correct in law, it matters not how carelessly or negligently performed—because, forsooth, no one could be found of the same pretensions to testify with respect to such treatment, the injured person would be without remedy. The contention is, we think, untenable."

Decisions Without Expert Testimony

Although the foregoing is a fair statement of the law relating to the requirements of proof in

cases of malpractice, there are decisions by Supreme Courts affirming judgment against physicians and holding in particular cases that the testimony of experts is not necessary to prove negligence on the part of a physician or surgeon. In these cases the courts have allowed the facts of the treatment to go to the jury without the testimony of experts relative thereto and permit the jury to determine the question of negligence without such aid. For the purpose of this article it is not necessary to discuss such decisions in detail.

The Careful Physician Is Safeguarded

Guarded by these rules necessitating the proof of negligence on the part of a physician or surgeon by expert testimony, it would seem that a careful and reputable physician is in a degree safeguarded in escaping the accusations of malpractice. In this particular, however, the profession is beset by its worst enemy and that enemy is bred within its own borders. This enemy appears in the person of a practitioner of enough ability to qualify as an expert witness. He has a wrong to right, either real or imaginary, or perhaps a jealous passion to feed, or, giving way to a pedantic weakness, wishes to pose before laymen as a superior critic of the work of his betters, and is led to give an opinion adverse to the treatment of his brother practitioner thus laying the basis for a conviction of civil malpractice.

This danger is one from which no practitioner is exempt and a judgment in every suit for civil malpractice is a possibility because the courts of the Country universally hold that the jury is the judge of the weight of the evidence and they can believe or disbelieve any part or all as they choose. Hence the testimony of one expert, however insignificant he may be, is sufficient to authorize a finding of guilt against the accused if the jury is disposed to believe his testimony.

End of Second Article.

DETROIT BECKONS YOU!

Don't miss the 75th Annual Convention of your State Society at the Book-Cadillac Hotel, Detroit, September 24, 25, 26, 27, 1940



WASHINGTON BOULEVARD
DETROIT

The 1940 Convention promises to be outstanding in the history of the Michigan State Medical Society

THE BUSINESS SIDE OF MEDICINE

ASSISTANTS—ASSOCIATES—PARTNERS

By Henry C. Black — Allison E. Skaggs

When a medical practice seems to be too large for one doctor to handle, it sometimes becomes advisable to obtain the services of an assistant or an associate physician. Before going into such an association, however, we have found that the doctor should consider the possibility that better office facilities, better arrangement of time, improved coördination between the doctor and the nurse or secretary, or even the employment of an additional girl in the office, may make this step unnecessary.

As the new business problems arising from taking in another doctor deserve careful study, and as entirely new financial responsibilities are being assumed, it behooves both parties to make themselves thoroughly acquainted with the benefits as well as the hazards lest lack of forethought cause what might otherwise be a promising association, to come to grief.

Our experiences with such arrangements in the past several years prompt us to venture an outline of some pertinent conclusions.

For clarity we might classify some forms of association with which we are familiar:

A. The Employer-Employee Relationship where the employer
   1. Pays a salary to the employee
   2. Pays a salary and commission, bonus, or percentage to the employee. In either case ownership of the physical assets, accounts receivable, and goodwill always remain with the employer.

B. The Junior-Senior Relationship, usually some form of partnership where the senior partner may
   1. Retain ownership of all physical assets and accounts receivable, but share a percentage of income with the junior partner, increasing this percentage from year to year.
   2. Give or sell part ownership of the physical assets and accounts receivable to the junior partner thus allowing him to acquire more and more ownership and control as his percentage of the total earnings increases.

C. Equal Partnership, where two or more doctors, for their mutual benefit, pool their assets and share incomes and expenses, the advantages and disadvantages of which have been discussed in a previous issue of this Journal (*J.M.S.M.S.*, Vol. 36, December, 1937 Issue, Page 986).

D. Limited Partnerships in which practices may not be shared at all, but where joint ownership of an office building, or medical equipment is desired, or where there may be operating expenses which can be pooled to mutual advantage.

Group Practices, consisting of associations of many rather than two or three, come into the same general classifications, or combinations of them, differing from them only in the degree to which the problems become more complex, and since almost all associations begin with only two doctors, let us discuss briefly only the Employer-Employee, and the Junior-Senior Relationship.

The question as to which type of relationship now exists in Employer-Employee associations already set up is sometimes not too easy to decide, and without a written contract, often the rights of the men involved are not too clearly defined. For example a partnership might exist between two doctors without either being aware of it, and we have heard of cases where an employee whose remuneration had been on a percentage basis has, in the event of the death of the employer, sought to recover a share of the uncollected accounts from the employer's estate, even though the employer had never considered him a part owner at any time. Obviously enough, as we have so frequently stated in previous

articles, it is most important to have these matters clear in the beginning, and the pertinent facts included in a written agreement drawn up by an attorney

We believe one of the principal difficulties often encountered in a Junior-Senior relationship hinges on uncertainty as to the future, as it relates to either party. For example, Dr. Blank, having been in practice for ten or fifteen years, doing more work at times than his health will stand, and finding an occasional vacation next to impossible, considers employing an assistant. If he obtains a well-trained man with a good personality, there is always the danger that within a year or two, his assistant will get well enough acquainted to set up a practice for himself, take a substantial number of the patients with him, and to a large extent, build his own goodwill at the Senior's expense. On the other hand, if Dr. Blank gets a man reasonably competent, but without a pleasing personality, the Junior remains an assistant to the degree that the vacation problem is still there, and his contribution to the practice, as far as new patients in his age group are concerned, may be insignificant. This lack of confidence in what either may do several years hence is frequently the barrier to a successful association, and as there are many ways in which the future of each man may be reasonably well protected, it would seem to us that such arrangements should be encouraged.

If Dr. Blank knows it is not to Dr. X's best interests to leave, but rather to assist him as much as possible, profiting from his experience, making friends, and working for the common good, and if Dr. X has a reasonable assurance that his future with Dr. Blank depends entirely on how much interest and hard work he puts into the association, then hearty coöperation on both sides will lead to the most successful result for both. Dr. X, although possibly beginning on a salary, may have his future assured by early commitment as to an ultimate partnership.

A physician has little opportunity to cash in on his years of experience, his goodwill, or even his investment, after his period of greatest activity, except through an association with a younger man, where the experience and goodwill of the one may be supplemented by the energy and enthusiasm of the other.

In return for an immediate living, and the possibility to practice without years of waiting for patients, many young doctors will welcome the opportunity to bear the physical load in the Senior's later years, allowing him to conserve his energies and still enjoy a substantial income.

In pointing out some of the pitfalls to be avoided in various types of medical associations we do not intend to discourage them. On the contrary, there are many advantages in their proper application, and we know many that are pleasant and profitable. The basis for such successful relationships is not only the obvious fair treatment on both sides, but a thorough understanding of the aims and ambitions of each man, and a definite arrangement in writing will prevent, as far as possible, misunderstandings as to the present and doubts as to the future. By combining careful analysis of the local situation with experienced counsel, almost any established physician who seeks an associate in his office can do the thing which many would like to do, but have hesitated to do because of the unfortunate experiences of some of their colleagues.

YOU AND YOUR BUSINESS

MEDICAL MEN LEAD AGAIN!

Falling in at the head of the parade, the House of Delegates of the American Medical Association, representing more than 117,000 members of the medical profession in the United States, adopted unanimously a resolution on Medical Preparedness introduced by the Board of Trustees of the A.M.A. The resolution calls for the immediate creation of a Committee on Medical Preparedness to consist of ten members of the House of Delegates, together with the President and Secretary of the Board of Trustees, the President and Secretary of the A.M.A. and the Editor of *The Journal of the A.M.A.* as ex-officio members.

The resolution further provides that the "Committee establish and maintain contact and suitable relationship with all governmental agencies concerned with the prevention of disease and the care of the sick, in both civil and military aspects, so as to make available at the earliest possible moment every facility that the American Medical Association can offer for the health and safety of the American people and the maintenance of American democracy."

The personnel of the Committee on Medical Preparedness is as follows: Irvin Abell, M.D., Louisville, Chairman; Charles A. Dukes, M.D., Oakland, California; Roy W. Fouts, M.D., Omaha; Stanley H. Osborn, M.D., Hartford, Conn; John H. O'Shea, M.D., Spokane, Wash.; James E. Paullin, M.D., Atlanta, Ga.; Walter G. Phippen, M.D., Salem, Mass.; Harvey B. Stone, M.D., Baltimore; Fred W. Rankin, M.D., Lexington, Ky.; and Samuel E. Thompson, M.D., Kerryville, Texas. Ex-officio members of the committee include Arthur W. Booth, M.D., Elmira, New York, and Austin A. Hayden, M.D., Chicago, Chairman and Secretary, respectively of the Board of Trustees of the A.M.A.; Nathan B. Van Etten, M.D., New York City; and Olin West, M.D., Chicago, President and Secretary, respectively, of the American Medical Association; and Morris Fishbein, M.D., Chicago, Editor of *The Journal of the A.M.A.*

Members of the House of Delegates also studied tentative plans for mobilization of the medical profession in the event of a national emergency, which were presented by Col. G. C. Dunham of the U. S. Army Medical Corps.

A Medical Preparedness Section was inaugurated in the *A.M.A. Journal* with the June 22 issue. In this section appear official notices by the Committee on Medical Preparedness of the American Medical Association, announcements by the Surgeon Generals of the Army, Navy and Public Health Services, and other governmental agencies dealing with medical preparedness, and such other information and announcements as will be useful to the medical profession.

ALMOST A THOUSAND CRIPPLES NEED IMMEDIATE CARE

5,000 crippled children have been examined in the Crippled Children commission clinics during the past year.

1,331 needed immediate hospitalization and medical care.

394 have been hospitalized.

937 who should have immediate treatment have received no care.

Our State officials, who have closed their eyes to this crying need, are merely delaying the day of reckoning. The future price of permanent disability, suffered by thousands of crippled and afflicted children of Michigan, will be far greater to the taxpayers than the present cost of an efficient rehabilitation program.

MICHIGAN GOES AMERICAN

There is solid profit in being well. The person in exuberant health is difficult to defeat.

If a nation were to choose between health and wealth, it would be wise to choose health. This is no preachy saying—more and more people in general are realizing the truth of the worth of health.

The foregoing is not wholly fundamental to this discussion, but it has much to do with it.

Michigan, a success of our legislature, Mrs. Dora Stockman, the coöperative spirit and escape from too much government at Washington are considerations all bound up in what is here attempted.

Recently Mrs. Stockman, representative of the second district of Ingham county, but more celebrated for her leadership in the Michigan State Grange, was in Washington from where she broadcast to the nation over the facilities of the NBC the working of the new Michigan law, wherein people in those areas of the state where there is no medical and nursing service are now benefited.

While the situation has not been known to many, yet, those especially charged with such problems have studied the situation for a long time. So the new legislation of the last legislature is not the result of a flash of reform, lacking due consideration.

The new legislation need not be realized as a mere generality. A brief statement will make the need more clear. According to Mrs. Stockman, the mortality rate among mothers and children was five times as great where there was no medical or nursing care as where such care and attention were afforded. Such a situation is the statement of a real need.

For a long time the Michigan State Grange has been aware of the dire situation. Five years ago it definitely took the problem in mind. As is often the case when a need of the kind arises, it also became contemplated by the Michigan Medical Society. So, at the last session of the legislature, the minds of those interested met. The Michigan Medical Society asked Mrs. Stockman to aid them in expressing in an appropriate measure their plan for servicing the areas unserviced with physicians or nurses.

The idea took the form of medical insurance. For a fee graduated for the individual, or for a husband and wife or for a whole family, the Michigan Medical Society engages to supply medical attention.

The best of the whole matter is that the plan works—that is to say, it is resulting as intended. The first ten weeks of the new law saw more than sixty thousand subscribers to the plan enrolled. Acceptance of the plan is increasing.

Decrease of the mortality rate among mothers and children in the unserviced areas of the state will be the best aspect of the new undertaking; but, close after that result, stands the fact that there is something the people of Michigan are doing for themselves, in their own way. We are not trusting to centralized government at Washington.

With centralized medical control, Hitler began his subjugation of the German people. This nation will continue a self-dependent nation or a Washington dependent nation—there are no two ways about it.—*State Journal,* Lansing, June 3, 1940.

"NON REPITATUR"

"Under one of the sections of the new Federal Food, Drug and Cosmetics Act it is unlawful to dispense any barbiturate, Barbital, Phenobarbital, Nembutal, etc., either over the counter or on prescription without affixing a sticker marked 'Warning—May be habit forming,' UNLESS the p r e s c r i p t i o n is originally marked 'Non Repitatur.' " It is our belief that such a sticker might create a feeling of alarm in the patient's mind, and for this reason it is suggested that each prescription for barbiturates should be marked "Non Repitatur." This procedure makes the warning sticker unnecessary and gives the druggist a chance to send the patient back to his doctor for further medication. It also will discourage the promiscuous refilling of prescriptions of this type.

KNOW WHAT'S IN YOUR CONTRACT

There is no insurance contract offered to physicians which has not been gone over and over again most carefully by competent legal talent, point by point, to safeguard the legal interests of the insurer. Certainly, what is prudent for the insurer is an equally wise procedure for the prospective insured to follow. It is urged that specimen contracts from as many insurance companies as possible be obtained, and then submitted to any attorney for comparative selection of the one best suited to your individual needs. Don't buy on sales talk alone.—*Medical Jurisprudence,* by Carl Scheffel, Ph.B., M.D., LL.B., P. Blakiston's Son & Co., 1931.

INVITE THEM TO JOIN

How many eligible doctors of medicine in your county are not members of the County and State medical societies because they have received no invitation to become associated with organized medicine? The President and the Membership Committee of the Michigan State Medical Society wish to appoint the County Medical Society

Secretary to be a committee of one to make personal or telephonic contacts with all ethical practitioners, urging them to become active members of the County and State medical societies NOW.

Tangible benefits are being received by members of the Michigan State Medical Society—else what can account for the all-time high record of 4,427 members?

SUGGESTIONS ON RADIO TALKS

Effective radio speakers realize that they hold or lose the listener in the first minute or two. Therefore they make a point of doing these things:

Subject:

They select a subject interesting, important and vital to people. They find out what interests people by asking those who really represent different sections of the radio audience—such as the business man, the manufacturer, the scientist, the teacher, the young student, the man in the street, the laborer, the motorman, the clerk, and so on.

How They Write Their Speech:

They write as they talk.

They make their talk alive with things of homely interest.

They make their remarks short, terse, and direct to the point.

They make their speech concrete and specific about a few points. They know that too many ideas confuse the listener.

They write their speech so as not to crowd the time allotted. They allow themselves ample time for emphasis; for using a free and easy manner without galloping to a finish.

They use simple, understandable words which every listener knows. They realize that it is unnecessary to impress on the listener that they know all the big words in the dictionary.

They avoid long, pedantic speeches.

They avoid statistics as they would the plague. If statistics are unavoidable, similes by word pictures are always best.

They avoid humor, unless they are qualified to use it. They know that it takes a natural humorist to tell a funny story.

They never make the direct statement that they are going to prove so and so. They know that this always makes a listener antagonistic.

Delivering The Speech:

They approach the microphone as if they were discussing matters with a group of acquaintances.

They speak sincerely and convincingly.

They pace their talk as they would in face-to-face conversation. They always avail themselves of time for studio rehearsals at the broadcasting station.

They follow the meaning of their remarks, rather than the actual commas and periods.

They time their speech at rehearsal, and they carefully watch their time.

They leave their audience wanting more.

They broadcast as they talk, not as they read.

They do not clear their throats or cough when near a microphone. They have their manuscripts on loose sheets, never clipped together. They know that in this way they can drop each sheet to the floor as it is finished.

They never say anything for a few seconds before starting or after closing. They are conscious that the microphone might be open and pick up such sounds.—*From a bulletin from the Columbia Broadcasting System.*

THE DUTIES OF PHYSICIANS TO EACH OTHER AND TO THE PROFESSION AT LARGE

ARTICLE I.—Duties to the Profession.

Deportment

Section 3.—A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life." (Hippocrates.)

Advertising

Section 4.—Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communica-

tions, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not per se improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any method to gain the attention of the public for the purpose of obtaining patients.—Extract from Chapter III of *Principles of Medical Ethics.*

WAGNER-GEORGE HOSPITAL BUILDING BILL

The United States Senate passed the Wagner-George Hospital Building Bill in its revised form and included the dangerous and unsatisfactory definition of "hospital" as a "health, diagnostic, or treatment center, the equipment thereof, and facilities relating thereto." The bill has been sent to the House of Representatives for consideration, where, it has been urged the definition of the term "hospital" will be clarified.

HUGH CABOT, SALESMAN

No more outspoken and biased salesman of any of the recent plans for medical care has arisen than Hugh Cabot, M.D., who is now peddling group practice through his book "The Patient's Dilemma," and more recently through magazine articles. An example of the latter appeared in the April issue of *American Magazine.* Laurance Redway, Editor of the *Westchester Medical Bulletin,* advises his membership "to read carefully this artful piece of special pleading, and to note the 'rabbit-stew' character of the defamatory cartoon" accompanying the article.

Just why Doctor Cabot of late has stooped to such odd peregrinations of both legs and hands it is a little puzzling to determine but what is still more puzzling is why he does not tell the truth. Testimony in court under oath by a physician should never afford the slightest possibility of doubt as to its veracity. No more should the public be fed with such propaganda as this: "I feel that the most of the trouble with medicine today comes from this system of private practice." "It is this system which is keeping the patients home in droves while the doctors are wondering how to pay their rent." "I am appalled at the inadequate, inferior, and terribly expensive care that the American people are receiving today." "As usual, it's the great middle class which is suffering most." "With organized medicine fighting to protect the fee system, the situation is bound to get worse rather than better."

Dr. Hugh Cabot would have us plunge into group practice, divided responsibilities, buck passing, and all, because we are such an immoral group of individuals without principle or high standards! Boston still may be the home of the bean and the cod, but the Cabots no longer show evidence of talking only with God.—*Connecticut State Medical Journal* (May, 1940)

ATTENTION, MR. BOYLES

According to information received up to July 2, 1940, the following county medical societies numbering thirty-seven, covering sixty-one counties of Michigan, have rejected new Schedule A of the C.C.C.:

1. Allegan
2. Alpena-Alcona-Presque Isle
3. Barry
4. Bay-Arenac-Iosco-Gladwin
5. Berrien
6. Branch
7. Calhoun
8. Chippewa-Mackinac
9. Clinton
10. Delta-Schoolcraft
11. Dickinson-Iron
12. Eaton
13. Genesee
14. Gratiot-Isabella-Clare
15. Hillsdale
16. Huron-Sanilac
17. Ingham
18. Ionia-Montealm
19. Jackson
20. Kalamazoo
21. Kent
22. Manistee
23. Mason
24. Mecosta-Osceola-Lake
25. Menominee
26. Midland
27. Muskegon
28. Newaygo
29. Northern Michigan (Antrim-Charlevoix-Cheboygan-Emmet)
30. O.M.C.O.R.O. (Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw)
31. Ontonagon
32. Shiawassee
33. St. Joseph
34. Tuscola
35. Van Buren
36. Washtenaw
37. Wexford-Kalkaska-Missaukee

Woman's Auxiliary

Bay County.—Twenty-three members of the Woman's Auxiliary to the Bay County Medical Society met at the home of Mrs. D. J. Mosier for a buffet dinner on Wednesday, May 8.

Mrs. W. R. Ballard, President, conducted the business meeting. We are planning on having a rummage sale in October and Mrs. R. E. Scrafford, who will have charge of the sale, asked the ladies to keep their rummage.

Mrs. A. D. Allen, program chairman, introduced Mrs. Frederick F. Hewitt, who gave a most interesting talk on our local social agencies. A discussion followed and most of us gained a better understanding of the social work being done in our community.

The members of the Auxiliary voted to petition for membership in the Council of Social Agencies.

This was our last meeting until fall.

* * *

Calhoun County.—Annual report of the Calhoun County President of the woman's auxiliary to the Calhoun County Medical Society for 1939-40.

The past season has been a most successful one in Calhoun County for we have accomplished many things. New members have been added bringing our total membership as of March 1, 1940, to 38.

A résumé of the year follows:

In September our rummage sale netted us a profit of $147.37.

Our October meeting was successful and a grand send-off for the year—Dr. Ruth Baldwin from the Behavior Clinic of Bellevue Hospital of New York City spoke to us informally concerning the clinic and many of her outstanding experiences.

The November meeting was an unusual success for many things were accomplished.

First—we voted to assist the Calhoun County Crippled Children's Society. Where we were able and with $100 we established a fund to be used by us as needed to carry on our work as directed by the above society.

Second—we donated $100 to the Battle Creek district of the Michigan State Nurses Association to aid them in opening a Doctors and Nurses registry here in Battle Creek.

Third—At a cost of $100 we purchased a new davenport and large chair for the lounge of the Community Hospital Nurses Home. We are greatly indebted to a local furniture dealer for his great generosity in making the purchase possible for only $100.00.

Fourth—we contributed $10 to Leila Hospital Nurses and $10 to Community Hospital Nurses to be used toward their annual Christmas parties.

Fifth—Twenty-five dollars was sent to the Michigan Children's Aid to help their Christmas party fund.

In December we were dinner guests of our husbands. At Christmas time we secured the name of a needy and deserving family and completely cared for it before the Holidays. Our basket included staple supplies, perishable foods, candy, new clothing, new toys and gifts for all.

February the Auxiliary spent our meeting day sewing for Leila Hospital. 360 articles were completed.

At the March meeting sewing was done for Community Hospital and 182 articles were finished.

The April and May meetings were spent socially. No June meeting was held but a picnic for the doctors and their wives was given at Gull Lake.

Genesee County.—The regular meeting of the Woman's Auxiliary to the Genesee County Medical Society was held on Wednesday, May 22, at the home of Mrs. D. L. Treat, Flint. The guest tea at two o'clock was preceded by a meeting of the Board at one. At this time a campership of two weeks was allowed some worthy girl at the local Girl Scout Camp and a contribution was voted for the Red Cross.

The current welfare project, caring for a doctor's widow who is old, ill and impoverished was taken up and discussed and arrangements made to care for her through the summer. Contributions of money and food supplies were acknowledged. Mrs. W. Z. Rundles, Mrs. Alvin Thompson, Mrs. T. S. Conover and Mrs. Kenneth Sandy were appointed a committee to take charge of the project for the summer months.

The regular meetings were suspended for the summer, to resume at the regular time in September.

At two o'clock about fifty members and friends gathered for a most interesting tea and program.

Miss Betty Titus and Miss Bessie McPhee rendered several piano classics written by Chopin, Debussy, Haydn, et al.

Following the musical program Dr. Marie Skodak, assistant director of the Flint Child Guidance Clinic, spoke on the work of the Clinic, giving a very interesting résumé of the work they are doing with problem children and parents.

Following the program tea was served with Mrs. Gordon Willoughby, past president, and Mrs. J. H. Curtin, president of the Auxiliary, presiding at the Silver Service.

Mrs. Treat was assisted by a committee composed of Mrs. Guy D. Briggs, Chairman, Mrs. Frank Reeder, Mrs. H. T. White, Mrs. T. S. Wills and Mrs. D. R. Wright.

* * *

Jackson County.—The final meeting of the Woman's Auxiliary to the Jackson County Medical Society was held at the home of Mrs. Horatio Brown. The committee in charge were Mesdames Jason Meads, Geo. Pray, Frank Pray, W. H. Enders, John Scott, R. A. Scheurer, Geo. Baker and E. E. Virvirski.

Annual reports were given by the committee chairmen. A steam inhalator has been purchased for Foote Hospital, 50 waste baskets for Mercy Hospital and knitting has been done for the Red Cross.

The retiring president, Mrs. A. M. Schaeffer, was presented with a gift of appreciation from the group.

The new president, Mrs. G. R. Bullen, named the following committees for 1940-1941: Membership—Mrs. T. E. Hackett; Flower—Mrs. Cecil Corley; Program—Mrs. Morris Wertenberger; Legislative and Public Relations—Mrs. Hector Chabut; Ways and Means—Mrs. W. A. Wickham; Historian—Mrs. J. H. Myers; Hygeia—Mrs. W. H. Enders; Press and Publicity—Mrs. H. F. Dold; Telephone—Mrs. A. K. Payne; Social—Mrs. J. W. Wholilhan; Budget—Mrs. G. L. Otis; Parliamentarian—Mrs. J. E. Ludwick; Auditing—Mrs. W. L. Lathrop.

The social hour was in charge of Mrs. Grant Otis. Prizes were presented to Mesdames J. E. Ludwick, E. O. Leahy, W. B. Anderson, R. J. Hanna, Geo. Pray, J. H. Myers, C. A. Leonard, and W. H. Lake.

YOUR OPPORTUNITY TO ENROLL IN THE GROUP HOSPITAL PLAN

On February 1st, 1940, a plan for hospital care protection was made available to the members of the Michigan State Medical Society.

More than 1,220 physicians enrolled at the first opportunity. Since many members who did not enroll with the original group now wish to take advantage of this protection, the Society is opening its books of enrollment from August 10th to August 20th. During this period applications will be accepted. Subscribers may also, during the reënrollment period, make any changes they desire, such as including other members of their immediate family.

This service is offered by the Michigan Society for Group Hospitalization, a non-profit organization of 109 member hospitals throughout the State of Michigan. The Society offers the services of the hospitals on a small monthly pre-payment basis. For as little as two cents a day subscribers assure themselves of hospital service when needed. For as little as five cents a day the entire family may be protected.

Over 912 days of hospital service have been rendered to our members since the plan was installed, at a cost of over $6,000. The hospitals guarantee the services listed in the subscriber's certificate, which precludes the possibility of an assessment. The plan is operated on a non-profit basis, assuring the subscriber of hospital service at cost.

On this page is an application for your convenience. All applications received up to August 20th will be dated and made effective August 15th. Please do not forward a payment with your application. After your certificate has been issued, the Michigan Society for Group Hospitalization will send you a statement semi-annually. Payments should be made directly to their office.

APPLICATION

MICHIGAN SOCIETY FOR GROUP HOSPITALIZATION

I wish to enroll in the Michigan Society for Group Hospitalization. I desire the type of certificate checked below and understand that services listed therein will be available immediately upon your acceptance of this application.

MONTHLY RATES

Ward Service		Semi-Private Service	
☐ Single Subscriber	60c	☐ Single Subscriber	75c
☐ Self and Spouse (man or wife)	$1.20	☐ Self and Spouse (man or wife)	$1.50
☐ Self, Spouse and Unmarried Children (1 to 19 years)	$1.50	☐ Self, Spouse and Unmarried Children (1 to 19 years)	$1.90

My Name .....

Address .....

City .....

Listed below are the names of members of my family to be included in my certificate

Spouse (man or wife) .....
(Full Name)

Unmarried Children (1 to 19 years ony)

(First Name)	(Year Born)	(First Name)	(Year Born)
(First Name)	(Year Born)	(First Name)	(Year Born)
(First Name)	(Year Born)	(First Name)	(Year Born)
(First Name)	(Year Born)	(First Name)	(Year Born)

MICHIGAN STATE MEDICAL SOCIETY

POLLEN COUNT STATIONS

Pollen count stations will be established at some forty cities in the northern resort region of Michigan, according to plans which are being developed by the State Health Department. These stations will provide information for the thousands of hay fever sufferers who annually seek relief in this state.

Cities invited to participate in this program are located north of the Ludington-Bay City line. Local representatives in each of these cities will expose slides daily, sending them to the Lansing laboratories at weekly intervals for an interpretation by a trained botanist. Reports will be issued showing the comparative concentration of pollen in the various resort areas.

Cities participating in the pollen count program have been asked to contribute funds to help pay the salary of a trained botanist during the summer months. Since hay fever is not a specific communicable disease, health department funds are not available to finance the program. This will be the first time that a state health department has attempted such a survey on a wide scale. The tourist and resort associations of Michigan have also been invited to participate in the program.

HALF MILLION BLOOD TESTS IN NINE MONTHS

More than 500,000 serological tests for syphilis have been made during the first nine months of the current fiscal year, the Bureau of Laboratories reports. From 50,000 to 60,000 tests are being made each month.

The increase has been credited to a more general understanding of the value of blood tests and to the operation of the premarital and prenatal physical examination laws.

Positive indications of syphilis in marriage license applicants and in expectant mothers have been running approximately one per cent of the 15,414 tests made. For marriage applicants during the first quarter of 1940 there were 184 tests positive for syphilis, or 1.2 per cent. The prenatal blood specimens showed 203 or one per cent positive out of 20,440 blood specimens.

200 TYPHOID CARRIERS

More than half of Michigan typhoid fever cases are being traced to typhoid carriers, the Bureau of Epidemiology reports. Detailed records maintained by the bureau for the past eight years now list 200 known typhoid carriers. The bureau keeps in constant touch with these carriers instructing them in measures to prevent spread of the disease.

Last year there were 25 typhoid deaths in Michigan compared with 89 in 1930 and 300 in 1920. More is known about the cause and spread of typhoid probably than any other disease, yet the average of deaths per 100 cases remains today the same as it was years ago. Ten fatalities are expected out of every 100 typhoid cases.

NEW BABY INCUBATORS

A new incubator, being developed by the Bureau of Maternal and Child Health for the care of premature infants, has been placed in Children's Hospital, Detroit, on an experimental basis under the direction of Dr. Warren E. Wheeler, pediatric consultant. The new incubator will be used in caring for babies of various sizes and varying degrees of prematurity for the purpose of obtaining data as to its most effective operation. After this preliminary data has been obtained, similar incubators will be made available at selected centers throughout the state.

The incubator has been developed in the Engineering Division of the Ford Motor Company under the supervision of Dr. Wheeler. It is expected that the incubators will prove valuable in the care of premature babies delivered at home, for their transportation when necessary, and also for use at smaller hospital centers. When these centers have been selected, nurses on local health department staffs will be trained in the care of premature babies and arrangements made for the organization of a general premature infant program in the community, including education of both lay and professional groups.

ILLEGAL MEDICAL PRACTICE

The Law Enforcement Division has announced the recent conviction of two men for the illegal practice of medicine.

James C. Spurbeck, Lansing masseur, was convicted and sentenced by the Ingham County circuit court to three months' imprisonment and $150 fine, with the alternative of three additional months' imprisonment if the fine is not paid.

Edward La Motte of Garden, charged with illegally treating cancer patients, pleaded guilty in Chippewa County circuit court at its May session and was placed on three years' probation. The defendant was warned that any subsequent violation of the Medical Practice Act would mean a six months' term of imprisonment.

COMMUNICABLE DISEASES REPORT

	Total Cases First 4 Months 1940	Total Cases First 4 Months 1939
Pneumonia	1,416	2 214
Tuberculosis	1,818	2,049
Typhoid Fever	31	25
Diphtheria	**93**	**171**
Whooping Cough	**2,306**	**3,420**
Scarlet Fever	5,483	5,807
Measles	6,011	5,188
Smallpox	**11**	**55**
Meningitis	17	24
Poliomyelitis	12	9
Syphilis	3,713	3,810
Gonorrhea	2,160	2,087

MATERNAL HEALTH SURVEYS

Maternal health committees of the various county medical societies are inaugurating surveys of maternal and newborn mortality in their areas, according to Dr. Alexander Campbell, maternal health consultant. It is expected that these surveys will be continued over a period of five years. Local health officers have been requested to coöperate in every way possible in these surveys.

Following his recent survey of maternal health in Flint, Dr. Clair Folsome, obstetrical consultant, has been requested by the local medical societies to make similar surveys in Pontiac and Grand Rapids.

Dr. Campbell served in a consultant capacity during June to maternal health committees of Jackson County and Berrien County. Dr. Folsome was assigned during June to Kent County at the request of the county medical society. Dr. Warren Wheeler, pediatric consultant, served in Huron, Sanilac and Tuscola Counties during June at the request of the local medical societies.

IN MEMORIAM

Josephus M. Burgess of Northville, Michigan, was born November 11, 1852, at Walled Lake, Michigan, and was graduated from the University of Michigan Medical School in 1876. Dr. Burgess first went into general work in Saginaw but subsequently to Northville. Here he practiced medicine until he went to Detroit 25 years ago to be associated with his son, the late C. G. Burgess, M.D. Dr. Burgess was made an Honorary member of Wayne County Medical Society and the Michigan State Medical Society in 1932. He died on May 7, 1940.

* * *

Manley D. Caughey, of Detroit, Michigan. He was born in Crofton, Ontario in 1876 and was graduated from the Michigan College of Physicians and Surgeons, now a part of Wayne University. Dr. Caughey was prominent in Detroit medical circles for thirty-five years. He died June 14, 1940.

* * *

Milan Coburn of Coopersville, Michigan, was born on September 24, 1859 in Zeeland Township, Michigan and was graduated from the University of Michigan Medical School in 1893. Dr. Coburn practiced medicine in Coopersville since 1904. He was a retired member of Ottawa County Medical Society and of the Michigan State Medical Society. He died May 25, 1940.

* * *

Alva Collins of Detroit, Michigan, was born January 5, 1861 in Point Peninsula, New York. He was graduated from the University of Michigan Medical School in 1885. After interning in the New York Polyclinic hospital, he began practice in Detroit as an assistant to Dr. Donald McLean and in 1890, he opened his own offices, continuing the practice of medicine and surgery until he retired 10 years ago. Dr. Collins had served as president of the Wayne County Medical Society, and was an Emeritus member of the Michigan State Medical Society. He died May 23, 1940.

* * *

William A. Evans, of Detroit, Michigan. He was born at Dover, Ontario, August 24, 1876 and was graduated from the University of Michigan Medical School in 1902. After graduation he went into general practice at Bellarie, Michigan. In 1910 he moved to Detroit to study and practice roentgenology. He served as head of the X-Ray department of Harper Hospital, and for many years was a member and president of the Detroit Board of Health, during which time he was active in the campaign for the prevention of tuberculosis. Dr. Evans served on the staffs of several hospitals during the thirty years of his medical career in Detroit, and was a past president of the Radiological Society of North America. He died on June 9, 1940.

* * *

Arthur G. Holbrook, of Coldwater, Michigan. He was born October 6, 1866 in Nashville, Tenn., and was graduated from the Jefferson Medical college in Philadelphia, Pa. In 1899 he opened his practice in Coldwater, Michigan. Dr. Holbrook served as Treasurer of the Michigan State Medical Society for several years and was elected an Emeritus Member at its Annual Meeting September 1939. He died June 6, 1940.

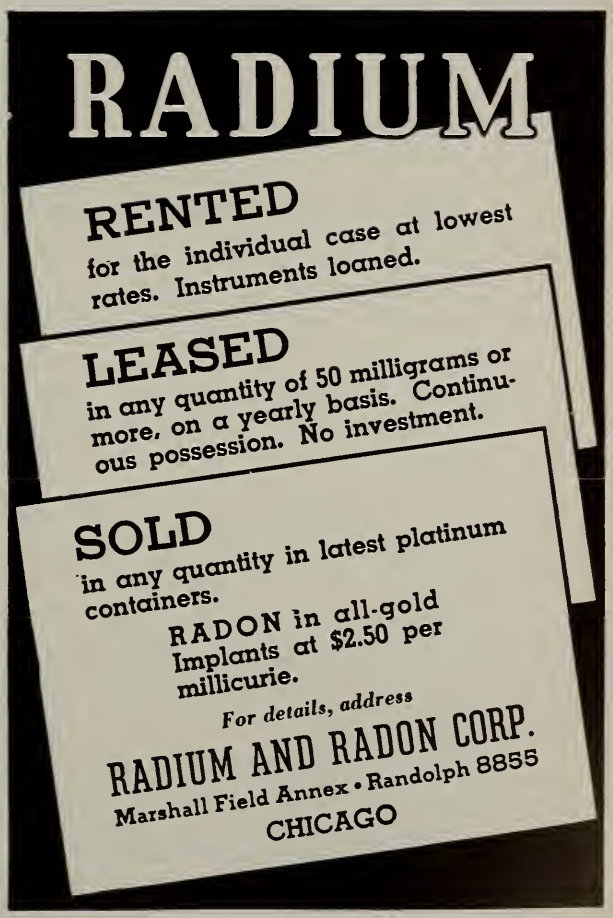
Walter F. Martin, of Battle Creek, Michigan. He was born June 11, 1875 in Mount Vernon, Ohio, and was graduated from the American Medical Missionary college in 1903. He took postgraduate work at the New York Postgraduate Medical School, Johns Hopkins University and in Vienna, London, Paris and Berlin. Dr. Martin practiced medicine for 37 years and was head of the department of urology and was vice president of the Battle Creek Sanitarium board of Trustees. He was nationally known as a urological surgeon. In 1927 he was president of the Calhoun County Medical Society. He died on June 11, 1940.

* * *

Frank A. Votey, of Grand Rapids, Michigan. He was born in Scotts Corner, New York, July 27, 1862, and was graduated from Columbia University Medical School in 1887. He conducted a general practice in Detroit and Benton Harbor for several years and then took post-graduate work in proctology. He then opened offices in Grand Rapids, where he practiced for thirty-eight years. He died March 24, 1940.

* * *

James B. Bradley of Eaton Rapids, Michigan, was born November 19, 1858, in Laignsburg, Michigan, and was graduated from Rush Medical College, Chicago, Illinois. After graduation he located in Eaton Rapids, continuing the practice of medicine for fifty-four years. Dr. Bradley served as Auditor General of the State of Michigan from 1905 to 1908. He was medical examiner for the United States Draft Board during the World War and was chairman of the 1934-35 Legislative Committee of the Michigan State Medical Society. He was mayor of Eaton Rapids in 1901 and 1904. In September, 1939, Dr. Bradley was elected an Emeritus Member of the Michigan State Medical Society. He died July 4, 1940.



✶ COUNTY AND PERSONAL ACTIVITIES ✶

100 Per Cent Club for 1940

1. Allegan County Medical Society
2. Barry
3. Branch
4. Cass
5. Chippewa-Mackinac
6. Clinton
7. Delta-Schoolcraft
8. Gogebic
9. Houghton-Baraga-Keweenaw
10. Huron-Sanilac
11. Ingham
12. Lenawee
13. Livingston
14. Luce
15. Macomb
16. Manistee
17. Marquette-Alger
18. Mason
19. Mecosta-Osceola
20. Menominee
21. Midland
22. Muskegon
23. Newaygo
24. Oceana
25. O.M.C.O.R.O.
26. Ontonagon
27. Ottawa
28. St. Clair
29. Tuscola
30. Wexford-Kalkaska-Missaukee

The above Societies have each certified dues for 100 per cent of their physicians who were members in 1939. Fifteen other societies have three or fewer unpaid members!

You can't get security without giving up some freedom. The most secure person is the man in jail.

* * *

Herbert M. Holman, M.D., formerly of Ann Arbor, is now associated with Arthur E. Schiller, M.D., in Detroit.

* * *

J. K. Heckert, M.D., Lansing, was recently elected President and Wm. D. Irwin, M.D., Kalamazoo, re-elected Secretary of the Southwestern Michigan Triological Society.

* * *

Found guilty of practicing medicine without a license, L. H. Bock, an osteopath of Dowagiac, was sentenced to thirty days in the county jail, after his failure to pay a fine of $25.00.

* * *

Occupational disease reporting blanks, to aid you make the uniform report as required by law, are available in quantities. Write H. Allen Moyer, M.D., State Health Commissioner, Lansing, Michigan.

* * *

C. L. A. Oden, M.D., of Muskegon wrote the chapter on "Emergency Ligations and Control of Hemorrhage in the Treatment of Malignant Tumors" in the three-volume work entitled "Treatment of Cancer and Allied Diseases," to which prominent medical men from all parts of the United States have been asked to contribute.

Robert S. Breakey, M.D., Lansing and C. K. Valade, M.D., Detroit, members of the MSMS Syphilis Control Committee, addressed the Annual Convention of the Michigan State Pharmaceutical Association on June 4, 1940 in Grand Rapids.

* * *

Announcement has been received that Louis N. Katz, M.D., Director of Cardiovascular Research at Michael Reese Hospital, Chicago, is offering a full-time two-weeks' intensive course in Electrocardiography, August 19 to August 31. For particulars write Michael Reese Hospital, 29th and Ellis Avenue, Chicago.

* * *

E. Fullerton Cook, of Philadelphia, General Chairman, U.S.P. XII Committee, announces that the enforcement of the standards for Surgical Gut, which were announced in the Second Supplement to the U.S.P. XI, as effective July 1, 1940, will be postponed until January 1, 1941.

* * *

J. E. McIntyre, M.D., Lansing, Councilor of the 2nd District and Secretary of the State Board of Registration in Medicine, was honored by being chosen president-elect of the Federation of State Medical Boards at their recent annual meeting in Chicago. Doctor McIntyre will take office as president in 1941, following the expiration of the term of John R. Neal, M.D., of Springfield, Illinois.

* * *

Columbia University of New York City announces a short course on Clinical Disorders of Respiratory and Circulatory Function and Inhalation Therapy to be given under the direction of Alvan L. Barach, M.D., and Dickinson W. Richards, Jr., M.D., September 23 to 28, 1940. For further information write The Dean of the School of Medicine, 630 West 168th Street, New York City.

* * *

Chiropractors will not be permitted to attend compensable injuries of W.P.A. employees and others injured under the U. S. Employees Compensation, according to the latest information from Washington. The House of Representatives subcommittee which considered the bill to allow chiropractors to treat injured Federal employees has decided not to report favorably on it.

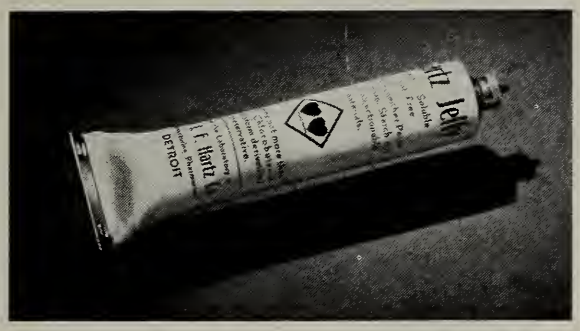
* * *

The regular spring meeting of the Michigan Pathological Society was held in Lansing, Saturday, May 25. There were 27 in attendance. The afternoon meeting, comprising demonstrations and exhibition of cases, was held at the Laboratory of the Michigan Department of Health. The dinner and evening meeting were held at St. Lawrence Hospital. The scientific program produced a variety of interesting pathological material. Nineteen cases were presented by thirteen members, on the subject "Pathology of the Cardio-Vascular System." The next meeting will be held on October 12, in Detroit, place to be selected. The meeting will be a seminar on "Diseases of the Blood." Dr. Russell Haden, of Cleveland, will be the guest speaker and referee.

* * *

A "venereal disease specialist," James Spurbeck of Lansing, who also is a masseuse, pleaded guilty to the charge of practicing medicine without a license after he admitted he had examined a girl and announced she had a positive case of gonorrhea. A competent medical examination proved that the girl was not infected. Judge

HARTZ JELLY — A Non-Irritating Lubricant



Hartz Jelly is a water-soluble, fat-free lubricant for hands, sounds, catheters, bougies, cystoscopes, and other body-entering instruments.

Hartz Jelly contains no petroleum, soap, starch or other objectionable materials. It insures an easy introduction with the least inconvenience to the patient.

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PRICE:
$1.50
a dozen tubes



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Ward S. Ferguson, M. D. **James C. Droste, M. D.** **Lynn A. Ferguson, M. D.**

✣

PRACTICE LIMITED TO
DIAGNOSIS AND TREATMENT OF

DISEASES OF THE RECTUM

✣

Sheldon Avenue at Oakes
GRAND RAPIDS, MICHIGAN

✣

Sanitarium Hotel Accommodations



Main Entrance

SAWYER SANATORIUM

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Marion, Ohio

For the treatment of
Nervous and Mental Diseases
and Associated Conditions

Licensed for
The Treatment of Mental Diseases
by the Department of Public Welfare
Division of Mental Diseases
of the State of Ohio

Accredited by
The American College of Surgeons

Member of
The American Hospital Association
and
The Ohio Hospital Association

Housebook giving details, pictures, and rates will be sent upon request. Telephone 2140. Address,

SAWYER SANATORIUM

White Oaks Farm

Marion, Ohio

Hayden of the Justice Court sentenced Spurbeck to three months in jail plus a fine of $150, with additional three months in jail if the $150 fine is not paid.

Credit for collecting the evidence and following through on the above and many other cases of illegal practice of medicine is due Captain L. A. Potter, Inspector for the State Health Department, who is working in coöperation with the Michigan State Board of Registration in Medicine in an effort to protect the public from such unauthorized practice.

Dr. Power Appointed Field Representative



The Cancer Committee, in collaboration with the Michigan Health Department wishes to announce the appointment of Dr. Frank Power, of the Surgical Department of the University of Michigan, as successor to Dr. Clifford Keene as its Field Representative for the year 1940-41.

Dr. Power is a Michigan man—his home being in Traverse City. He graduated from the University of Michigan, took his medical work at Northwestern and has been a member of the surgical staff of the University of Michigan Medical School for the past five years. He comes to us with the highest recommendations.

Both the Michigan Health Department and the Cancer Committee are very much pleased over the acquisition of Dr. Power and look forward to another profitable year in its field work.

* * *

Condemnation of the practice of patenting of drugs or medical appliances for profit whether the patent be held by a physician or be transferred by him to some university or medical research foundation, as unethical is the gist of a resolution recently adopted by the Jefferson County (Louisville, Kentucky) Medical Society. The Society believes that the patenting of medical appliances and drugs results in the deprivation of the needy sick of the benefits of many new discoveries.

* * *

Recent articles appearing in *The Journal of the American Medical Association* include "Heparin" by Roy D. McClure, M.D., and C. R. Lam, M.D., of Detroit, issue of May 25; and "Pectin-Agar for Diarrhea in Infants and the Newborn: A Rational Simple and Effective Treatment" by Philip J. Howard, M.D., Detroit, co-author with Charles A. Tompkins, M.D., of Omaha, Nebraska, appearing in the issue of June 15.

* * *

Henry Cook, M.D., of Flint, Chairman of the Committee on Industrial Health, M.S.M.S., C. M. Colignon, M.D., Muskegon, and K. E. Markuson, M.D., of Detroit, were guest speakers at a Clinic on Health In Industry sponsored by the National Association of Manufacturers, the Muskegon Employers' Association and the Employers' Association of Grand Rapids, in Muskegon on June 28. Industrial health problems, deemed vital now in the nation's defense production speed-up, were analyzed.

* * *

Afflicted Child: Additional county societies are refusing to accept the new "Schedule A," proffered by the Michigan Crippled Children Commission, which schedule was reduced forty per cent below actual cost levels, without consultation with the members of the medical profession. To date, thirty-four county medical societies, representing fifty-five of the eighty-three counties, have protested against politics in connection with medical care. The following societies have taken action during the past few weeks: Allegan, Kalamazoo, Mecosta-Osceola-Lake, Ontonagon, Ottawa, Washtenaw.

DIAMOND JUBILEE OF M.S.M.S.

Your M.S.M.S. Convention is a Great Service to you. A $5,000 Show—at no cost to the individual member.

The 1940 Convention will be held in Detroit at the Book-Cadillac Hotel on September 24, 25, 26, 27. A number of extraordinary events will be featured at the Detroit Convention, which will mark the Diamond Anniversary. Wednesday, September 25, will be marked by the President's Dinner to be held in the Ball Room of the Book-Cadillac Hotel at 7:00 p.m., to which all members of the Michigan State Medical Society and their ladies are cordially invited.

A Smoker, for M.S.M.S. members only, has been arranged for Thursday, September 26, Ball Room, beginning at 9:00 p.m. Admission will be by complimentary admission card which will be sent prior to the meeting to all members.

Invitational Golf, at the beautiful Detroit Golf Club. will feature Monday, September 23. All M.S.M.S. members are invited. Tee off 1:00 p.m. Dinner and presentation of prizes at the Club, 7:00 p. m. Cost of greens fees and dinner, $4.00.

The Upper Peninsula Reunion Dinner, for physicians and their ladies who are practicing. or have practiced, or who feel that they should practice in the Upper Peninsula, will be held on Thursday. September 26, in the English Room at 6:30 p. m. Numerous other get-togethers of alumni and fraternity groups are being planned.

Plan now to spend several days in the metropolis of Michigan. Meet your fellow practitioners from all parts of the state, learn the latest advances in medical science from the nation's outstanding physicians and surgeons, and enjoy a well-deserved vacation from your demanding practice. Write for hotel accommodations today.

* * *

When the *American Life Insurance Company,* Detroit, went out of business in 1938, it owed a number of physicians sums of money for medical examinations made in behalf of the company. It is possible that these claims may be paid in whole or in part at some future date.

Physicians having such accounts against the American Life may file their claims with the Receiver or through the office of the insurance company in Detroit. (The American United Life of Indiana, 408 Fort Street, Detroit). It is not known what proportion of the claims will be paid, but it is advisable to file the claims in order to obtain what money is payable.

* * *

Correction—Our apologies to the following physicians whose names were inadvertently omitted from the Roster of Members published in the May issue of THE JOURNAL:

Blake, H. P.....Marquette
Campbell, Duncan A.....Detroit
Cavell, R. W.....Eloise
Fordell, F. S.....Detroit
Johnson, Ralph A.....Detroit
Kernick, Melvin O.....Detroit
Lang, L. W.....Detroit
Lange, A. H.....Detroit
Lawrence, Wm. C.....Detroit
Meade, Wm. H.....Jackson
Rothbart, H. B.....Detroit
Zimmerman, R. L.....Detroit

These names are being included in the Supplementary

Prescribed for the Professional Palate

There's no whisky to please your palate more completely than Johnnie Walker. For there's no finer whisky than Scotch, and Johnnie Walker is Scotch at its smooth, mellow best.

IT'S SENSIBLE TO STICK WITH

JOHNNIE WALKER

BLENDED SCOTCH WHISKY



Red Label
8 years old
Black Label
12 years old
Both 86.8 proof



BORN 1820
... still going strong

CANADA DRY GINGER ALE, INC., NEW YORK, N. Y.
SOLE IMPORTER

Roster appearing in this issue. We are sincerely sorry these names were omitted from the regular Roster.

* * *

The 1940 Graduate Fortnight of the New York Academy of Medicine will be held from October 14 to 25, 1940. The subject is "Infections." The Fortnight will present a carefully integrated program which will include morning panel discussions, afternoon clinics and clinical demonstrations at many of the hospitals of New York City, evening addresses, and appropriate exhibits. All members of the medical profession are eligible for registration. A complete program may be obtained by writing Mahlon Ashford, M.D., New York Academy of Medicine, 2 East 103rd St., New York City.

* * *

Dr. Murphy Wins Golfing Championship of A.M.A.



Dr. John M. Murphy, Detroit, won the championship of the American Medical Golfing Association at Winged Foot Golf Club, Mamaroneck (Westchester County), New York, on the occasion of the A.M.A. meeting. For his gross score of 160 for 36 holes, he was presented with the famous Will Walter Trophy.

Dr. J. M. Robb, Detroit, was presented with the Atlantic City Trophy, for his low score in the 18-hole Handicap Championship.

Dr. Frank A. Kelly, Detroit, took home the Minneapolis Trophy, emblematic of championship among the Seniors.

Dr. H. N. Harkins of Detroit won the Petrolagar prize for a low gross in the Second Flight, and Dr. Philip A. Riley of Jackson turned in the best score in the Third Flight, winning a handsome Lektrolite.

The next tournament of the American Medical Golfing Association will be held in Cleveland in June, 1941.

* * *

Doctor, remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten more of the firms which helped make the 1939 Convention such a great success:

E. R. Squibb & Sons, New York
James Vernor Company, Detroit
Wall Chemicals Corporation, Detroit
U. S. Standard Products Company, Woodworth, Wisconsin
Westinghouse X-Ray Company, Inc., Long Island City, New York
Winthrop Chemical Company, New York
John Wyeth & Brother, Inc., Philadelphia
The Zemmer Company, Pittsburgh
Zimmer Manufacturing Company, Warsaw, Indiana

* * *

For the academic year 1940-41, Abbott Laboratories has established fellowships in several universities with important departments of organic chemistry and biochemistry. The fellowships, carrying stipends of $650 per year, will be available to graduate students in the last or next to the last years of graduate work leading to the doctorate degree. The recipients, who are to be selected by the universities in which their work is being done, are not limited as to the subjects on which they will work.

The object of the fellowships is to provide means for the carrying on of additional scientific work in American universities. The future progress of chemical developments in this country will depend upon the availability of well-trained and qualified men, and it is the intent of Abbott Laboratories in establishing these fellowships to lend encouragement in these general fields.

Grants will be made to the following universities:

In organic chemistry: Cornell, Harvard, Illinois, Michigan.

In biochemistry: California, Columbia, Cornell.

SILVER PICRATE

Wyeth

HAS SHOWN A CONVINCING RECORD* OF EFFECTIVENESS IN ACUTE ANTERIOR URETHRITIS

due to Neisseria gonorrheae • Trichomonas vaginalis Monilia albicans

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in anterior urethritis: Wyeth's Silver Picrate Crystals in an aqueous solution of 0.5 percent.

Supplied at all pharmacies in vials of 2 grams

Complete literature on Silver Picrate as used in genitourinary and gynecological practice will be mailed on request.

*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA, PA.

Wayne University Group Visits Lilly Plant

Eli Lilly and Company had the pleasure of a visit from the Wayne University College of Medicine, Detroit, Michigan, on June 2, 3, and 4, 1940.

Dr. Sidney Adler, faculty member, accompanied the group to Indianapolis as did Mr. Raymond McCaughan, Lilly representative.



Upon their arrival to the Pharmaceutical Laboratories Monday morning, Mr. Eli Lilly, President of the Company, extended the official welcome. At noon the group was shown one of the medical films dealing with the Anemias. The entire day was spent in the Research and Manufacturing Laboratories. Dr. D. C. Hines of the Professional Relations Department spoke to the group at the banquet that evening.

On Tuesday, June 4, the group visited the Lilly Biological Laboratories at Greenfield, Indiana, where explanations were made by various department heads concerning biological production carried on at that unit. The group departed after luncheon on Tuesday.

* * *

COUNCIL AND COMMITTEE MEETINGS

1. Tuesday, May 21—Joint Committee on Health Education—Porter Hotel, Lansing—5:00 p.m.
2. Wednesday, June 5—Child Welfare Committee—Flint—3:00 p.m.
3. Wednesday, June 5—Special Committee with Probate Judge Association—Hotel Porter, Lansing—3:00 p.m.
4. Friday, June 21—Cancer Committee—Woman's League Bldg., Ann Arbor—6:30 p.m.
5. Sunday, June 23—Preventive Medicine Committee—Hotel Statler, Detroit—3:00 p.m.
6. Thursday, June 27—Executive Committee of The Council—Porter Hotel, Lansing—3:00 p.m.
7. Friday, July 12—The Council—Mackinac Island beginning at 10 a.m. and continuing through Saturday, July 13.

* * *

A meeting of District Managers and representatives of Michigan Medical Service and the Michigan Society for Group Hospitalization was held in Detroit on May 17 and 18. Speakers and their subjects included the following: Henry R. Carstens, M.D., Chairman of the Board of Directors of MMS—"The Development of Group Medical Service Programs." Wm. J. Burns, Secretary of MMS—"Legal and Insurance Relations." R. G. Leland, M.D., Director of the Bureau of Medical Economics of the American Medical Association—"Voluntary Medical Service Plans." J. D. Laux, Executive Director of MMS—"Provisions of Medical Service Plan and Surgical Benefit Plan." L. Fernald Foster,

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M.D., Secretary of the Michigan State Medical Society —"Medical Service Plans and the Medical Profession." John R. Mannix, Director of the Michigan Society for Group Hospitalization—"Presentation of Medical and Hospital Plans." Opportunity was given those attending to participate in the discussion of the subjects presented.

* * *

COUNTY SOCIETY MEETINGS

Alpena-Alcona-Presque Isle—May 29, Onaway. State Society Night and Dinner honoring Clarence A. Carpenter, M.D., of Onaway upon his completion of 40 years of medical practice. Many of the State Society officers were present.

Bay County—May 22, Bay City. Speaker: LeMoyne Snyder, LL.B., M.D., Lansing. Joint meeting with Bay County Bar Association.

Berrien County—June 6, Bridgman. Program on Cancer Prevention.

Calhoun County—June 6, Gull Lake. Sports in the afternoon. Evening program: Dr. Boldyreff's "Life and Work of Dr. Pavlov."

Dickinson-Iron—June 6, Iron River. Program on Back Injuries by Dr. Jones.

Eaton County—May 23, Charlotte. Speaker: Cyrus C. Sturgis, M.D., of Ann Arbor.

Hillsdale County—May 23, Hillsdale. Speaker: Arthur C. Curtis, M.D., Ann Arbor.

Ingham County—May 23, Lansing. Picnic Dinner prepared and served by members of the Woman's Auxiliary to the Ingham County Medical Society. On July 25, members of the Ingham County Medical Society will be guests of the C. J. Rouser Drug Company on a "Roman Holiday" consisting of a trip to Detroit, including a visit at the Parke Davis Laboratories and the baseball game between the Detroit Tigers and Washington Senators, as well as a banquet in the evening at the Book-Cadillac Hotel.

Ionia-Montcalm County—June 11, Green Gables, Saranac. Speaker: F. Bruce Fralick, M.D., Ann Arbor.

Jackson County—May 21, Jackson. Speakers: Carey P. McCord, M.D., Detroit and Alexander M. Campbell, M.D., Grand Rapids.

Kalamazoo County—May 21, Kalamazoo. Speakers: Herbert Harris, M.D., and Martin Batts, M.D., Ann Arbor.

Kent County—June 13, Grand Rapids. Doctor-Lawyer Picnic.

Lenawee County—May 21, Adrian. State Society Night. Speakers: Henry R. Carstens, M.D., Detroit; L. Fernald Foster, M.D., Bay City; H. H. Cummings, M.D., Ann Arbor; and Mr. Wm. J. Burns, Lansing.

Marquette-Alger County—May 21, Marquette. Speaker: M. Cooperstock, M. D., Marquette.

Midland County—March 14, Midland. Speaker: Russell Costello, M.D., Detroit. April 25, Midland. Gordon Myers, M.D., Detroit. May 9, Midland. Speaker: M. Cooperstock, M.D., Marquette.

Muskegon County—May 17, Muskegon. Speaker: Edward R. Krumbiegel, M.D., Milwaukee, Wisconsin.

Oakland County—June Meeting, Rotunda Inn. Speaker: Richard H. Freyberg, M.D., Ann Arbor.

St, Clair County—May 28, Port Huron. Speaker: L. B. Ashley, M.D., Detroit.

St. Joseph County—May 22, Three Rivers. State Society Night Program. Speakers: Burton R. Cobus, M.D., Grand Rapids; L. Fernald Foster, M.D., Bay City; Wilfrid Haughey, M.D., Battle Creek; Wm. J. Burns, Lansing and Capt. L. A. Potter of Lansing.

Shiawassee County—June 20, Owosso. Medical movie presented.

West Side Medical Society (Wayne County)—May 22. Annual Outing at Camp Nahelu, Perry Lake. June 12, Detroit. Special Meeting. Election of Officers.

* * *

NEW SOCIETY OFFICERS

Eaton County

President—Bert Van Ark, M.D., Eaton Rapids
Vice President—C. J. Sevener, M.D., Charlotte
Secretary—B. P. Brown, M.D., Charlotte
Treasurer—H. Hannah, M.D., Charlotte
Delegate—Paul Engle, M.D., Olivet
Alternate Delegate—F. W. Sassaman, M.D., Charlotte

Wayne County

President—Allan McDonald, M.D., Detroit
President-Elect—C. E. Simpson, M.D.
Secretary—Gaylord S. Bates, M.D.
Trustee (5-year term)—J. H. Andries, M.D.
Trustee (2-year term)—A. F. Jennings, M.D.
Surgical Section Chairman—L. J. Morand, M.D.
Surgical Section Secretary—Eugene A. Osius, M.D.
Medical Section Chairman—Douglas Donald, M.D.
Medical Section Secretary—Wm. P. Chester, M.D.

* * *

SUPPLEMENTARY ROSTER

The following physicians have paid dues since the regular Roster of Members was published in the May issue of THE JOURNAL:

Bay-Arenac-Iosco-Gladwin

Sweet, Irwin C.....Sterling

Berrien County

Bartlett, Walter M.....Benton Harbor
Brown, F. W.....Watervliet
Colef, Irving E.....Benton Harbor
Gunn, J. W.....Watervliet
King, Frank A., Sr.....Benton Harbor
Leva, John B.....Benton Harbor
Schairer, Wm.....Coloma

Calhoun County

Bonifer, Philip.....Battle Creek
Sleight, James D.....Battle Creek

Genesee County

Alm, Bernhard T.....Flint
Bernstein, Eli N.....Flint
Cohen, Evelyn.....Flint
Eichhorn, Ernest.....Flint
Reichard, Orill.....Flint

Gratiot-Isabella-Clare

Hersee, Wm. E.....Mt. Pleasant
Silvert, P. P.....Vestaburg

Hillsdale County

Davis, L. A.....Montgomery

Houghton-Baraga-Keweenaw

Ellis, Fred.....St. Louis, Mo.
Van Slyke, Wm. H.....Hancock

Huron-Sanilac County

Nowotka, E. E.....Bad Axe

Jackson County

Enders, W. H.....Jackson
Harris, L. J.....Jackson
Meade, Wm. H.....Jackson
Townsend, J. W.....Vandercook, Lake

Mason County

Goulet, L. J.....Ludington
Spencer, C. M.....Scottville

Monroe County

Long, Sara.....Monroe

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MEDICINE—Two Weeks Intensive Course starting October 7th. Two Weeks Gastro-Enterology starting October 21st. One Month Course Electrocardiography and Heart Disease every month. Two Weeks Intensive Course Electrocardiography and Heart Disease starting August 5th. Four weeks Intensive Course in Cardio-Vascular Renal Diseases, Nervous Diseases, Diseases of Lung Pleura, Pericardium and Gastro-Intestinal Tract starting August 5th.

FRACTURES & TRAUMATIC SURGERY—Ten Day Intensive Course starting September 23rd. Informal Course every week.

GYNECOLOGY—Two Weeks Intensive Course starting October 7th. Four Weeks Personal Course starting August 26th.

OBSTETRICS—Two Weeks Intensive Course starting October 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting September 9th. Informal and Personal Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course starting September 23rd. Informal Course every Week.

ROENTGENOLOGY—Special Courses X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

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Muskegon County

Hagen, Wm. A.....Muskegon
Petkus, Antonie .....Muskegon

Oakland County

German, F. D.....Pontiac
Watson, Thomas Y.....Birmingham
Wiers, W. W. .....Royal Oak

Ottawa County

Clark, Nelson .....Holland
House, M. E.....Holland

St. Clair County

Carey, Lewis M.....Detroit

St. Joseph County

Dodrill, F. D.....Three Rivers

Van Buren County

Penoyar, C. L.....South Haven

Washtenaw County

Barr, A. S.....Ann Arbor
Bethell, Frank H.....Ann Arbor
Bruce, James D.....Ann Arbor
Frye, Carl H.....Ann Arbor
Gaensbauer, Ferdinand .....Ann Arbor
Gates, Neil A., Jr.....Ann Arbor
German, James W.....Ypsilanti
Haight, Cameron .....Ann Arbor
Hammond, George .....Ann Arbor
Johnston, Franklin D.....Ann Arbor
Kretzschmar, Norman R.....Ann Arbor
Latham, Kent G.....Ann Arbor
Power, Frank H.....Ann Arbor
Riecker, H. H.....Ann Arbor
Riggs, H. W.....Ann Arbor
Seime, Reuben I.....Whitmore Lake
Smith, Nelson M.....Ann Arbor
Weller, Carl V.....Ann Arbor
Wilson, Frank N.....Ann Arbor

Wayne County

Baker, Howard B.....Detroit
Connolly, John P.....Detroit
Eades, Charles C.....Detroit
Malone, Herbert .....Detroit
Muske, Paul H.....Detroit
Naud, Henry J.....Detroit
Nickels, Albert W.....Detroit
Rogers, Aaron Z.....Lochmoor
Stout, Lindley H.....Detroit
Peterman, Earl .....Detroit

Voluntary Sterilization

March 14, 1940.

14963
Dr. J. E. McIntyre, Secretary,
State Board of Registration in Medicine,
202 Hollister Building,
Lansing, Michigan.
Dear Sir:

We acknowledge your letter of March 1, requesting an opinion as to whether our State has any legislation allowing an operation for voluntary sexual sterilization of men and women.

We call to your attention Section 6661, Complied Laws of 1929, pertaining to illegal sexual operations, which provides:

"Except as authorized by this Act, every person who shall perform, encourage, assist in, or otherwise promote the performance of either of the operations described in section one (1) of this Act, for the purpose of destroying the power to procreate the human species, or any persons who shall knowingly permit either of such operations to be performed upon such persons, unless the same shall be a medical necessity, shall be guilty of a felony, and upon conviction thereof shall be fined not more than one thousand ($1,000) dollars or imprisoned in the state prison not more than five (5) years, or both in the discretion of the court before whom the said person or persons were so convicted."

Section 6661 supra, is Section 5 of Act 34, Public Acts of 1913, which was declared unconstitutional by our Supreme Court in the case of Haynes v. Lapeer Circuit Judge, 201 Mich. 138, but it is our opinion that the decision in said case did not affect the validity or operation of said Section 5.

Very truly yours,
THOMAS READ,
Attorney General.
By WILLARD McINTYRE,
Deputy Attorney General.

1940 EXHIBITORS

Exhibitors at the 1940 Diamond Anniversary Convention of the Michigan State Medical Society, to be held in the Book-Cadillac Hotel, Detroit, September 25, 26, 27, 1940, include:

	Space No.
Abbott Laboratories, Chicago	32
A. S. Aloe, St. Louis, Mo.	80
Arlington Chemical, Yonkers, N. Y.	53
Baker Laboratories, Cleveland	58
Bard-Parker Co., Inc., Danbury, Conn.	66
Barry Allergy Laboratory, Detroit	35
The Borden Company, New York	61
The Burrows Company, Chicago	51
Cameron Surgical Specialty Co., Chicago	40
S. H. Camp Co., Jackson, Mich.	17
Coca-Cola Company, Atlanta, Ga.	74
Cottrell-Clarke, Inc., Detroit	15
R. B. Davis Sales Corp., Hoboken, N. J.	75
Detroit X-Ray Sales Co., Detroit	69 & 70
Duke Laboratories, Stamford, Conn.	24
H. G. Fischer & Co., Chicago	7
General Electric X-Ray, Chicago	54
Gerber Food Products, Fremont, Mich.	41
Hack Shoe Company, Detroit	26
Hanovia Chemical & Mfg. Co., Newark, N. J.	33
J. F. Hartz Company, Detroit	55-56-57
H. J. Heinz Co., Pittsburgh	11
Holland-Rantos, New York	81
Horlick's Malted Milk Corp., Racine, Wis.	31
G. A. Ingram & Company, Detroit	63-64-65
Jones Metabolism Equipment Co., Chicago	9
A. Kuhlman & Co., Detroit	27-28
Lea & Febiger, Philadelphia	36
Lederle Laboratories, New York	12
Libby, McNeill & Libby, Chicago	76-77
Liebel-Flarsheim, Cincinnati	3
Eli Lilly & Company, Indianapolis	71
J. B. Lippincott Co., Philadelphia	2
M. & R. Dietetic Labs., Columbus	43
Mead Johnson & Co., Evansville, Ind.	72-73
Medical Arts Surgical Supply Co., Grand Rapids	59-60
Medical Case History Bureau, N. Y.	25
Medical Protective Co., Wheaton, Ill.	16
The Mennen Co., Newark, N. J.	67
Merck & Company, Rahway, N. J.	13
Wm. S. Merrell Co., Cincinnati	44
Michigan Society for Group Hospitalization and Michigan Medical Service, Detroit	68
C. V. Mosby Co., St. Louis	50
Muller Laboratories, Baltimore	52
Parke, Davis & Co., Detroit	18-19-20-21
Pelton & Crane, Detroit	37-38
Pet Milk Co., St. Louis	29-30
Petrolagar Laboratories, Chicago	22
Philip Morris Company, New York	42
Physicians' Equipment Exchange	79
Professional Management, Battle Creek	1
Ralston-Purina, St. Louis, Mo.	6
W. B. Saunders Company, Philadelphia	14
Schering Corp., Bloomfield, N. J.	49
Scientific Sugars Co., Columbus, Ind.	47
Sharp & Dohme, Philadelphia	39
S.M.A. Corp., Chicago	23
Smith, Kline & French, Philadelphia	10
E. R. Squibb, New York	8
Frederick Stearns, Detroit	45-46
Charles C. Thomas, Springfield, Ill.	78
U. S. Standard Products, Woodworth, Wis.	34
Vernor's Ginger Ale, Detroit	4
Westinghouse X-Ray Co., Long Island City, N. Y.	62
John Wyeth & Bro., Philadelphia	5
Zimmer Manufacturing Co., Warsaw, Ind.	48

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Registration for Tuesday, September 19, 1939

Hugh Aach, Kalamazoo; Max Abramson, Detroit; Frank A. Adams, Grand Rapids; Leonard C. Aldrich, Hancock; W. H. Alexander, Iron Mountain; Ralph V. Allen, Grand Rapids; Samuel S. Altshuler, Detroit; Florence Ames, Monroe; Einer B. Andersen, Iron Mountain; Harvey M. Andre, Battle Creek; Robert J. Armstrong, Kalamazoo; A. L. Arnold, Jr., Owosso; Ralph V. August, Muskegon Heights.

George H. Baert, Grand Rapids; Abel J. Baker, Grand Rapids; Robert H. Baker, Pontiac; Frederick W. Bald, Flint; William S. Ballard, Grand Rapids; Gordon W. Balyeat, Grand Rapids; L. R. Banner, Kalamazoo; R. H. Baribeau, Battle Creek; James W. Barnebee, Kalamazoo; S. E. Barnhart, Battle Creek; W. H. Barnum, Fremont; D. K. Barstow, St. Louis; Walter M. Bartlett, Benton Harbor; F. W. Baske, Flint; Theodore I. Bauer, Lansing; Horace J. Beel, Grand Rapids; Carl B. Beeman, Grand Rapids; C. E. Beeman, Grand Rapids; Howell L. Begle, Detroit; G. W. Behan, Galesburg; Chas. M. Bell, Grand Rapids; Zina B. Bennett, Detroit; Wm. L. Bettison, Grand Rapids; Wm. S. Bird, Greenville; Charles E. Black, Lansing; H. M. Blackburn, Grand Rapids; L. E. Blanchard, Hudson; C. J. Bloom, Muskegon; Richard C. Boelkins, Grand Rapids; Frank A. Boet, Grand Rapids; Leon M. Bogart, Flint; J. E. Bolendar, Grand Rapids; Geo. L. Bond, Grand Rapids; W. W. Bond, Monroe; Leon C. Bosch, Grand Rapids; DeVere, R. Boyd, Muskegon; C. E. Boys, Kalamazoo; Lewis E. Bracey, Sheridan; James S. Brotherhood, Grand Rapids; G. M. Brown, Bay City; Richard J. Brown, Owosso; Willis E. Brown, Ann Arbor; Jas. D. Bruce, Ann Arbor; Jacob Bruggema, Evart; Kathryn M. Bryan, Manistee; M. J. Budge, Ithaca; F. L. Bull, Sparta; E. P. Bunce, Trufant; John S. Burleson, Grand Rapids; J. H. Burley, Port Huron; W. M. Burling, Grand Rapids; B. B. Bushong, Traverse City; Volney Butler, Detroit; Wm. J. Butler, Grand Rapids; Earle J. Byers, Grand Rapids.

Alexander M. Campbell, Grand Rapids; Alice F. Campbell, Albion; James B. Campbell, Big Rapids; Mary B. Campbell, Detroit; Clarence A. Carpenter, Onaway; Ward L. Chadwick, Grand Rapids; M. S. Chambers, Flint; Donald Chandler, Grand Rapids; Wm. S. Chapin, Muskegon Heights; Leo F. Chess, Reed City; L. G. Christian, Lansing; E. O. Cilly, Grand Rapids; H. W. Clapp, Grand Rapids; Wm. E. Clark, Mason; Robert W. Clayton, Grand Rapids; Horace R. Cobb, Kalamazoo; Thomas H. Cobb, Woodland; W. G. Colvin, Grand Rapids; C. W. Colwell, Flint; R. C. Conybeare, Benton Harbor; C. A. Cooper, Hancock; M. Cooperstock; Marquette; Charles V. Crane, Grand Rapids; Edward M. Cuncannan, Grand Rapids; James E. Curlett, Roseville.

Edward C. Dale, Shepard; Harold J. Damstra, Grand Rapids; A. F. Dasler, Muskegon Heights; Alfred Dean, Grand Rapids; Guy Wm. De Boer, Grand Rapids; C. De Long, Grand Rapids; Richard De Mol, Grand Rapids; Isla G. De Pree, Grand Rapids; Leon De Vel, Grand Rapids; H. G. De Vries, Holland; A. R. Dickson, Battle Creek; Willis L. Dixon, Grand Rapids; W. E. Dolfin, Wayland; Fred J. Drolett, Lansing; James C. Droste, Grand Rapids; S. L. Drummond, Casnovia; W. J. DuBois, Grand Rapids; L. S. Dunkin, Greenville.

Robert M. Eaton, Grand Rapids; Robert J. Elvidge, Detroit; C. W. Ely, Saginaw; Earl H. Engel, Wyandotte.

C. G. Fahndrich, Battle Creek; John Fletcher Failing, Grand Rapids; L. W. Faust, Grand Rapids; Harold B. Fenech, Detroit; Edwin H. Fenton, Detroit; Lynn A. Ferguson, Grand Rapids; Ward S. Ferguson, Grand Rapids; W. B. Fillinger, Ovid; Ralph L. Fitts, Grand Rapids; J. Donald Flynn, Grand Rapids; Clair E. Folsome, Ann Arbor; John W. Fopeano, Kalamazoo; A. V. Forrester, Detroit; F. Bruce Fralick, Ann Arbor; Mary Margaret Frazer, Detroit; E. H. Fuller, Grand Rapids; R. W. Fuller, Crystal.

Everett W. Gaikema, Grand Rapids; F. W. Garber, Muskegon; L. W. Gatley, Pontiac; Harold H. Gay, Midland; C. J. Geenen, Grand Rapids; Willis Geerlings, Fremont; L. O. Geib, Detroit; Louis W. Gerstner, Kalamazoo; O. H. Gillet, Grand Rapids; Geo. R. Goering, Flint; C. J. Golinvaux, Monroe; C. L. Grant, Manistee; Frank A. Grawn, Traverse City; G. P. Graybiel, Caledonia; B. F. Green, Hillsdale; L. S. Griffith, Grand Rapids.

D. B. Hagerman, Grand Rapids; Brenton M. Hamil, Detroit; Kuno Hammerberg, Clare; T. W. Hammond, Grand Rapids; Wm. W. Handy, Flint; G. R. Hanke, Ransom; Faith F. Hardy, Grand Rapids; Wm. L. Harrigan, Mount Pleasant; A. F. Harrington, Muskegon; Dean W. Harris, Lansing; Hallie Hartgraves, Detroit; Shattuck W. Hartwell, Muskegon; James W. Hawkins, Detroit; R. E. Hawley, St. Clair Shores, Marne; H. B. Haynes, Lansing; C. W. Heald, Battle Creek; T. F. Heavenrich, Port Huron; Dewey R. Heetderks, Grand Rapids; Ruth Herrick, Grand Rapids; Harold C. Hill, Howell; R. J. Himmelberger, Lansing; T. Y. Ho, St. Johns; John T. Hodgen, Grand Rapids; K. P. Hodges, Lansing; A. Hoekman, Constantine; M. A. Hoffs, Lake Odessa; M. J. Holdsworth, Grand Rapids; S. Hollander, Grand Rapids; A. Holm, Le Roy; R. J. Hubbell, Kalamazoo; O. D. Hudnutt, Allegan; A. R. Hufford, Grand Rapids; H. F. Hughes, Hillsdale; J. G. Huizinga, Holland; R. J. Hutchinson, Grand Rapids; W. C. Huyser, Kalamazoo.

M. C. Igloe, Big Rapids; F. C. Irwin, Grand Rapids; J. F. Itzen, South Haven.

Robert Jaenichen, Saginaw; R. Grant Janes, Marquette; W. J. Jaracz, Grand Rapids; Alpheus F. Jennings, Detroit; Allan W. Johnson, Grand Rapids; K. H. Johnson, Lansing; O. G. Johnson, Mayville; P. R. Johnson, Mt. Pleasant; Charles Johnston, Detroit; T. K. Jones, Marshall; William S. Jones, Menominee.

A. H. Keefer, Concord; K. B. Keeler, Albion; S. S. Keller, Saginaw; Robert E. Kelly, Grand Rapids; Gerrit J. Kemme, Zeeland; Thos. R. Kemmer, Grand Rapids; George I. Keskey, Marquette; Saba Kessler, Bay City; M. R. Kinde, Battle Creek; John G. Kingma, Decatur; F. O. Kirker, Sandusky; Delmos K. Kitchen, Detroit; David Kliger, Detroit; Henry P. Kooistra, Grand Rapids; John Kremer, Grand Rapids; C. G. Krupp, Grand Rapids.

The above list represented a portion of the registration on Tuesday, September 19, 1939. The balance of those registering at the 1939 Convention will be published in succeeding issues of THE JOURNAL.

READING NOTICE

Oral Bismuth Therapy

A survey of the most important contributions dealing with economic aspects of syphilis (Am. J. M. Sc., 199: 586, 1940) emphasizes the staggering cost of this disease to the individual, the community, and the nation at large. The total cost of syphilis is enormous, even in these days when governments spend millions or billions of dollars daily. Treatment will wholly prevent this unnecessary expense. Untreated syphilis is a luxury for either individual or community.

The minimum number of persons in the United States constantly in need of medical care because of syphilis is estimated as 683,000. Annually, 500,000 cases of early syphilis seek authorized medical care. The probability of acquiring the infection sometime during life is one out of ten.

The usefulness of bismuth intramuscularly as an antisyphilitic agent has been demonstrated beyond question, and more recently the development of a soluble and clinically useful bismuth preparation suitable for oral administration has been accomplished in Sobisminol Mass, Lilly. It should be administered under the continuous supervision of the physician. Dosage may be controlled with certainty by estimation of the bismuth excretion in the urine, using Bismuth Excretion Test Tablets, Lilly.

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WHAT IT MEANS TO BE A DOCTOR.

From the opening sentence of Dwight Anderson's 86-page book which reads: "When illness occurs, we call the doctor. He comes," to the very last sentence, "What happens to the doctor also determines what happens to the patient. Their interests are the same," the reader packs in an enjoyable and illuminating two hours, whether he be physician or layman.

The Public Relations Bureau of the Medical Society of the State of New York sponsored this very interesting brochure, which is divided into three parts: What It Means . . . to Doctors; What It Means . . . to Dr. James (the hero of the piece); What It Means . . . to the Public.

"What It Means To Be a Doctor" should be on the waiting-room table of every physician in Michigan, yea, in the land. It is the kind of book that patients should "borrow" from the doctor's office (permanently) and pass out on from neighbor to neighbor.. It is medical public relations at its best.

CLINICAL HEART DISEASE. By Samuel A. Levine, M.D., F.A.C.P., Assistant Professor of Medicine, Harvard Medical School; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton Hospital; Physician, New England Baptist Hospital, Boston. Second Edition, Revised and Reset. Philadelphia and London: W. B. Saunders Company, 1940. Price: $6.00.

This is the second edition of the book published by this well-known cardiologist in 1936. While no great or fundamental advances in cardiology have taken place, changes bearing on certain subjects have occurred, especially in nomenclature of electrocardiograms. The book has been made much more practical and covers the subject of cardiology in a very readable manner. Its distinctly readable character and clear exposition make it valuable to the student and practitioner alike.

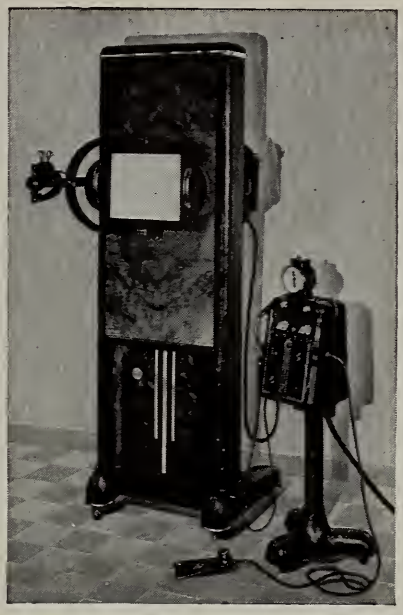
NEOPLASTIC DISEASES, A Treatise on Tumors. By James Ewing, A.M., M.D., Sc.D., LL.D., Professor of Oncology at Cornell University Medical College, New York City; Consulting Pathologist, Memorial Hospital. Fourth Edition, Revised and Enlarged with 581 Illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price: $14.00.

This is fourth edition of this comprehensive volume on neoplastic diseases, the third edition of which was published in 1928. The past twelve years have brought forth so much more information regarding these conditions that this edition is especially valuable. The reputation of the author requires no comment and the book is exceedingly comprehensive. It is so all-inclusive that it is difficult to believe there could be any question regarding new growths which is not amply explained in this book.

THE POISON TRAIL. By William F. Boos, M.D. Boston, New York: Hale, Cushman and Flint, 1940. Price: $3.00.

While this book was written primarily for the layman, it is of intense interest to any physician, particularly those who are intrigued by the medico-legal aspects of their profession. Dr. Boos is one of the country's leading pharmacologists and toxicologists. His part in the investigations of criminal and accidental poisonings has covered a period of many years. This is one of the few times when a scientific authority has written an interesting book.

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PSYCHOLOGICAL AND NEUROLOGICAL DEFINITIONS AND THE UNCONSCIOUS. By Samuel Kahn, M.D., Ph.D., Author of Sing Sing Criminals; Mentality and Homosexuality, and How to Study; Associated with the Mount Sinai Hospital Mental Health Clinic and the New York State Psychiatric Institute; formerly on the faculties of New York University, Georgetown and George Washington Universities, etc. Boston: Meador Publishing Company, 1940. Price: $2.00.

This is a small pocket-sized book designed to fill a need of those who are interested in psycho-analysis; in defining terms and explaining some of the phenomena. It has a very extensive bibliography including most of the important psychological books which have been published or translated into English.

DIABETES, Practical Suggestions for Doctor and Patient. By Edward L. Bortz, A. B., M.D., F.A.C.P., Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania; Chief of Medical Service B, The Lankenau Hospital, Philadelphia; Assistant Editor, The Cyclopedia of Medicine. With a Foreword by George Morris Piersol, B.S., M.D., F.A.C.P., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania; Editor in Chief, The Cyclopedia of Medicine. Second Edition Revised and Enlarged. Illustrated. Philadelphia: F. A. Davis Company, 1940. Price: $2.50.

This is the second edition of a book first published in 1936. It is a very complete discussion of diabetes providing condensed information very simply written for the practitioner, the nurse or the more intelligent diabetic. Beginning with the history of diabetes and its control the subject-matter embraces most of the problems in the handling of a diabetic. Practical information on the arrangement of diet makes this pocket-sized book of much value.

Take It and Like It

Henry Luce and his co-delegates to the A.M.A. Convention, Tom Gruber, Greg Christian, Tony Reeder, Claude Keyport and Burt Shurley were certainly on the watch at the meeting of the A.M.A. House of Delegates. Tommy Gruber thought the Reference Committee which handled the resolution regarding medical service plans was trying to change it too much. He raised a real protest until he found that the changes were approved by Henry Carstens, the Chairman of the Board of Directors of the Michigan Medical Service.

Pru Urmston, Henry Carstens, Fern Foster and Burt Corbus sat in on almost all the sessions so Michigan was well represented. Milt Robb of Detroit kept his hands in also.

Franklin Baske of Flint went to see "Hellzapoppin." The chorus comes down in the aisle and dances with the spectators who sit on the aisle seats but Frank had a sore foot so he had to pass it up.

Ted Andrews of Bay City couldn't get away for the A.M.A. Convention but his charming wife, Charlotte, decided at eleven P.M. that she ought to attend the Auxiliary meetings in New York so she and her children, Sis, and Dave, drove all night and all the next day in order to make it.

The dinner the Alpena-Alcona-Presque Isle County Medical Societies gave for Dr. Carpenter provided a fine opportunity for the officers of the Michigan State Medical Society who attended to enlighten the people in that district on the problems of organized medicine. Frank O'Donnell of Alpena was an impromptu toastmaster and his native Irish wit stood him well in hand. Several of the visiting firemen stopped at Grayling to see Claude Keyport but he wasn't home.

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Skin Disease

on the Hands*

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Boston, Massachusetts



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■ People consult physicians because of skin manifestations limited to the hands or with involvement of the hands as a part of the general cutaneous involvement. Hands, therefore, can furnish valuable information for the diagnosis of skin disease and an estimate of its evolution. The lesions present on the hands are the same as elsewhere on the skin with some modification on the palmar surface because of the thicker layer of keratin.

In the examination it is always worth while in any patient with skin disease to inspect carefully the hands with three points in mind: First, the types of lesions present and the predominating type; second, the lesional characteristics, such as arrangement (linear, annular, grouped, et cetera), color, thickening, evidence of itching, et cetera; and third, evidences of therapy as having a possible influence on the skin manifestations.

In the history careful attention will have been paid to the onset, course, symptoms, other diseases present, and especially to contacts, details of occupation, other people affected, and therapy both internal and external.

If an attempt is made to classify these hand cases etiologically, many cases, and perhaps the majority, have a dermatitis from one or more external factors. The next largest group includes the infections. These can further be divided into the bacterial, mycotic and parasitic groups, syphilis, and the few virus diseases. Outside of the dermatitis-eczema group and the infections there is much difficulty in placing these cases in different groups causally related.

It has, therefore, seemed best to discuss the skin manifestations of the more common dermatoses on the hands from the viewpoint of the types of lesions present. It is thus that physicians are presented with the problem. A patient comes into my office or your office, sits down, holds out his hands and asks, "What have I got?" and "What can I do about it?" I propose to consider this situation as a practical everyday problem and to demonstrate several patients and discuss the problems presented in their individual cases, realizing that rarely will a patient present only one type of lesion and that it is not possible to mention all types of disease.

Erythema

TABLE I. DISEASES CAUSING ERYTHEMA

- Dermatitis
  - Contact
  - Actinic
  - Radiation
  - Therapeutic
- Erysipeloid
- Toxic Erythema

The first patient, Mr. A., thirty-four years old, appears with a rather diffuse erythematous eruption on his hands of five days' duration, associated with con-

*Read at the annual meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 20, 1939.

siderable itching and moderate swelling. The eruption extends about one-half way to his elbows. He works in a compounding room in a rubber factory and has been on his present job for two weeks. In addition it is found that when this eruption appeared, on the second day he went to the corner drug store and received a dark colored salve which he applied to his hands and wrists. He continued to work. The eruption has gradually extended and become worse.



Fig. 1. Secondary syphilis —macular.



Fig. 2. Scabies burrows on hand.

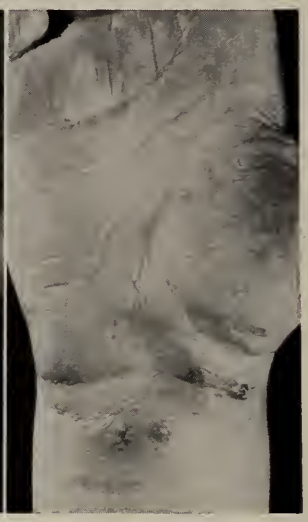


Fig. 3. Scabies on wrist.

There should be no question of the diagnosis of a dermatitis in this case. The problem in most of such cases is with regard to the causal factor.

No diagnosis of dermatitis should be considered final any more than endocarditis or meningitis should be considered as final if not qualified by the causal factor.

In the case of Mr. A., is this an industrial dermatitis, and if not, what is the cause? Or is it a therapeutic dermatitis? The latter is far more frequent than most physicians realize, comprising in my opinion 20-25 per cent of all dermatitis, while industrial dermatitis in a dermatological clinic may represent 10 per cent of such cases. In this case it developed that a new chemical accelerator was the cause of this dermatitis. An interview with the foreman brought out the fact of a new ingredient and patch testing with substances agreed. There was no doubt, however, of the exaggeration following the application of the dark ointment.

A diffuse erythematous eruption may be produced by other agents. In an actinic dermatitis or dermatitis from radiation by x-ray the history should make the diagnosis clear. Among fish and meat handlers the possibility of erysipeloid must be considered with its sharply outlined, brawny erythema and slowly advancing border. This is rather unusual but may become quite extensive.

This first case emphasizes four points:

1. **Every effort should be made to qualify a dermatitis as to the cause.**
2. **It is essential that an accurate, detailed history be taken.**
3. **The industrial factor in all hand cases should be carefully considered.**
4. **A therapeutic dermatitis is relatively common.**

Macules

TABLE II. DISEASES CAUSING MACULES

Secondary Syphilis
Erythema Multiforme
Drug eruptions
Pernio

The next patient, Mrs. B., twenty-eight years old, shows a macular eruption of one week's duration without symptoms (Fig. 1). She entered the Emergency Ward because of abdominal discomfort of one month, this discomfort in the last week becoming quite severe, cramplike pains, especially about one-half hour after eating. She was found to have a profuse general macular eruption, general glandular enlargement, white patches in her mouth, hoarseness and a positive Hinton test.

Here is a clear picture of secondary syphilis requiring the routine continuous treatment with

alternating courses of arsphenamine and bismuth for 100 weeks if no intolerance develops.

Other conditions with macular eruptions are erythema multiforme, drug eruptions and pernio or chilblains.

Secondary syphilis manifests itself not only as a macular eruption such as has been shown but also develops, after a time has elapsed, scaling areas with collarettes which will be discussed when the diseases with scaling are considered. In the early stages of erythema multiforme macular lesions are present both on the backs of the hands and on the palms, oftentimes being somewhat tender. When such conditions are first seen, however, the lesions have usually entered the vesicular stage and this condition will, therefore, be discussed later. Certain drug eruptions, such as those due to barbiturates, may produce macular lesions but these are usually comparatively few on the hands and show a very much more widely distributed eruption. Pernio, or chilblains, shows a macular eruption, usually over the fingers in cold weather. The lesions are usually very sharply outlined, often somewhat tender, the extremities are cold and the circulation is very sluggish.

In commenting on the macular group I desire only to point out the need of being constantly on the watch for the manifestations of secondary syphilis, whether on the skin or elsewhere.

Papules

TABLE III. DISEASES CAUSING PAPULES

Scabies	Epidermophytosis
Syphilis—secondary	Keratoses—actinic
—tertiary	—arsenic
Verrucæ	Carcinoma
Psoriasis	Granuloma pyogenicum

The next patient, George C., a 12-year-old boy, has had an itching papular eruption for three weeks. It has been quite marked on his body as well as on his hands. The hand eruption shows a papular eruption with a few vesicles. A close examination shows a number of dark, fine wavy lines on the palms. It is found on further questioning that his itching has been most marked at night and that a younger sister and the patient's mother are also itching and have similar, less marked lesions.

In this particular case the diagnosis of scabies is easy, but there are numerous cases in which the diagnosis is difficult when there is a much less definite history, when there are only a few lesions, and when there are no burrows. On the hands, the presence of lesions consistently on the webs of the fingers, or at the junction of the wrists and palms, are suspicious (Fig. 3). A hand lens in these particular cases is often a great help in the detection of small burrows or the remains of burrows, as well as in the search for the actual acarus.

The treatment used in this case, the one which most of us in Boston use, is the familiar Danish twenty-four hour treatment.

TABLE IV. DANISH TREATMENT OF SCABIES

1. Cleansing bath, soap and brush. Dry thoroughly.
2. Rub carefully with ointment whole body except scalp and face. Ointment must cover all skin, but hard rubbing is neither required nor desirable.
3. Wait fifteen minutes to give ointment time to get into skin, then go to bed.
4. In twenty-four hours, cleansing bath and fresh underclothing.
5. Sterilize all clothing coming in contact with skin, preferably by boiling. This includes both bed and body clothing.
6. Do not repeat treatment without instructions.
7. Every other member of the family who itches should be examined.

This ointment is applied from chin to soles after a cleansing bath and allowed to remain on the skin for twenty-four hours while the individual remains at home and in his or her usual nightclothes. Sterilization of all clothing coming in contact with the body while infected is a most important procedure. Care should also be taken after treatment not to wear clothing which might have come in contact with the skin while the disease was active.

Other conditions causing papules on the hands are quite numerous although none of them have the story or the true burrows as found in scabies. There are, of course, other diseases which may cause papules but these are the most common. Syphilis is a most important disease to consider with reference to papular lesions. Papules when present are usually a part of the general secondary picture in early syphilis so that it is not so easily mistaken for anything else. Tertiary lesions are apt to be limited to a particular area; they are apt to ulcerate, and they are apt to leave a little scarring and atrophy.

In any suspicious case an especially careful investigation and history and careful examination for other stigmata, as well as serology and spinal fluid, should be undertaken.

Psoriasis usually has other evidences of psoriasis and the subject will be discussed in more detail a little later.

Epidermophytosis usually presents vesicles as a part of the picture.

Verrucæ are easily recognized and need not be discussed in detail. There are, however, the verrucous lesions appearing following arsenic intake or exposure to radiation which need consideration when verrucæ are discussed. These are classed as keratoses and appear usually quite profusely on palms following extended arsenic medication some years previously (See Fig. 4). After over-radiation they are perhaps more apt to occur on the backs of the hands along with other evidences of radiation change. Carcinoma, usually developing on one of these keratoses, is a familiar picture with its induration, relatively slow growth and tendency to ulcerate, and needs radical treatment.

Vesicles

TABLE V. DISEASES CAUSING VESICLES

Dermatitis Venenata	Herpes Zoster
Plants	Infectious eczematoid
Industrial factors	dermatitis
Epidermophytosis	Varicella
Erythema Multiforme	Dyshidrosis
Scabies	Anthrax
Impetigo	



Fig. 4. Keratoses, arsenical.



Fig. 5. Granuloma pyogenicum.



Fig. 6. Erythema multiforme.

Granuloma pyogenicum is often not recognized (See Fig. 5). It appears as a single, rounded, papular elevation, bleeds easily and usually appears at the site of previous trauma or repeated trauma, and represents a protrusion of granulation tissue at the site of a low-grade infection. Thorough destruction is necessary to prevent its recurrence.

In commenting on this fourth case, I desire to emphasize the facts that

(1) the papule is an important lesion on the hand,

(2) scabies deserves consideration when papules or papulo-vesicles are found on webs, or

(3) multiple small keratotic lesions of the hands require investigation of previous therapy.

As an example of the group of diseases causing vesicles I wish to present Harry D., twenty-two years old, who has had his present eruption for two weeks. He states that he had a similar attack three months ago, and another one a year before that, and gives a vague history of a mild attack two years before the last one. These attacks have varied in length from a week to three weeks. On one occasion the eruption was accompanied by large blisters on the lips, resulting in a very sore mouth before the whole process cleared up. He shows an eruption limited to backs of hands, arms, with flat, flaccid vesicles of a peculiar purplish color. Some of the lesions show a central darker area like a bull's-eye. These are the so-called iris lesions.

This is a characteristic picture of erythema multiforme, with its limitation to the arms and hands, with its recurrence, with frequent oral lesions and characteristic purplish iris lesions. Such cases usually respond very readily to the intravenous injection of calcium, and often attacks can be aborted if calcium is administered intravenously at the first outbreak.

Numerous other diseases may produce vesicles on the hands. Every one is familiar with the manifestations of acute dermatitis with vesicles (See Fig. 7), whether limited to hands or elsewhere, caused by various plants and other external contacts. Of particular importance in this group is, I believe, the industrial group—the

many occupational cases which are being seen. Every dermatitis, whether with vesicles or not, limited to hands and arms, should, I believe, be suspected of being of industrial origin, and a careful history and investigation undertaken to exclude any such possibility.

Epidermophytosis is another disease with vesicles which often imitates dermatitis venenata very closely except that there are more vesicles



Fig. 7. Acute dermatitis.



Fig. 8. Infected epidermophytosis.



Fig. 9. Psoriasis.

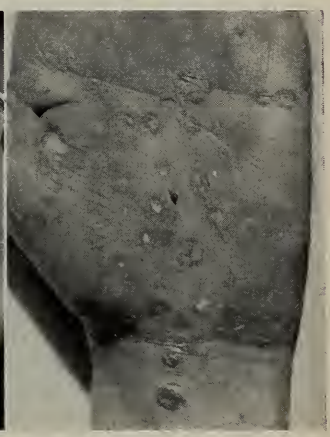


Fig. 10. Syphilis, secondary.

on the palm and they are thicker walled. The lesions tend to be present in a rosette-like arrangement rather than in streaks and there is the possibility of finding the fungus, while there is usually an accompanying involvement of the feet.

Erythema multiforme has a peculiar purplish color, with characteristic flat, flaccid bullæ, often on both palms and dorsal surfaces, and frequently with accompanying mouth involvement. Vesicles in scabies are characteristically at the ends of the burrows and in them may frequently be found the acarus. The vesicle of impetigo is characteristically thin-walled, easily ruptured, usually accompanied by other lesions elsewhere.

Herpes zoster is relatively rare but does occur on the hands with the characteristic grouped vesicles on a reddened base, in sharply limited areas.

Infectious eczematoid dermatitis is, I believe, more frequent on the hands than is often realized. It is a slowly extending erosion, the erosion itself sharply outlined, but beyond this periphery the skin is undermined, with a large number of very tiny, closely grouped vesicles, gradually disappearing in the normal skin. It is usually not serious but very disabling and very resistant to treatment.

Varicella limited to the hands is unusual and I imagine that anthrax in this vicinity is not seen with any frequency.

Emphasis should be placed,

first, on the difficulty of deciding between an acute dermatitis and an acute fungus infection,

second, on the importance of mouth lesions in erythema multiforme,

and *third,* on the need for thinking of occupation as a cause in any vesicular dermatitis of hands and arms.

Pustules

TABLE VI. HANDS—DISEASES CAUSING PUSTULES

Dermatitis, secondarily infected
Epidermophytosis, secondarily infected
Scabies, secondarily infected
Furunculosis
Paronychia
Variola

So far as pustules are concerned, any disease showing vesicles can, of course, become secondarily infected, with resulting pustules.

Roy E., a boy of sixteen, came to the clinic with both hands studded with vesicles and pustules, with considerable scaling and redness. For three years he had had recurrent attacks of grouped blisters on the palms and lateral surfaces of fingers which had almost cleared up from time to time. The most recent attack began about ten days ago and within the last four or five days his hands have swollen and have become quite sore, with some tenderness in the axillæ.

Such hands, with an infected fungus infection, will do best with incision of all infected vesicles

and bullæ, and the use of frequent hot wet dressings to aid drainage. My personal preference is for chlorinated soda soaks 1:30 or 1:60, with continuous wet dressing of the same solution.

It is to be remembered that the secondary infection of lesions can possibly obliterate much evidence of the primary factors.

Scales

TABLE VII. DISEASES CAUSING SCALES

Dermatitis
Psoriasis
Epidermophytosis
Syphilis
Other inflammations

Scales appearing on the hands are a frequent occurrence and the group of diseases with scales is an important one. Scales may, of course, follow any inflammatory condition.

Mr. F., a man of forty-two, is an example of this group. He has had a scaling and erythematous patchy eruption on his palms and elsewhere for ten to twelve years. This condition has varied considerably in severity and at times has practically cleared up for a period of a few months. He has had comparatively little itching but has suffered with rather deep fissures from time to time. He has had much treatment with comparatively little relief, at least permanent relief. Examination elsewhere shows other patches on his body, particularly elbows, knees and scalp, with sharply outlined, dusky red lesions, usually with the characteristic silvery white scales of psoriasis. There are also numerous characteristic tiny "pits" in the nails.

There are four important diseases in which scales are a characteristic manifestation, namely, psoriasis, epidermophytosis, secondary syphilis and a dermatitis or eczema. In numerous cases the lesions are limited to hands and possibly to feet, and it is often extremely difficult to distinguish between these diseases. The lesions of secondary syphilis on the palms are quite characteristic, with a tendency to involve the normal furrows, with the round or oval, red, often slightly pigmented lesions, with collarettes of thin scales (See Fig. 10). There are, of course, usually other manifestations which can be found —remains of the primary—general glandular enlargement and fading eruption elsewhere—possibly the remains of mucous membrane lesions—and characteristic serologic response.

The scaly fungus eruptions are usually larger, there is frequent undermining of the scales at the periphery of the lesions, which are sharply outlined. Spores and mycelia may be found in these lesions as well as in the accompanying involvement of the feet.

Scaling is a most common manifestation and often gives rise to considerable difficulty in diagnosis.

You will note that the term eczema has not been used in the discussion of these manifestations. While the term eczema will perhaps never disappear from dermatologic nomenclature it is my opinion that for all practical purposes dermatitis and eczema can be discussed under the same heading, providing the same stage is considered. Thus the discussions under erythema and under vesiculation can be considered to have covered an acute eczema or dermatitis. In the subacute or chronic types are found the induration, the scaling, crusting, fissures, pigmentation and often secondary infection. In order to properly classify and treat such cases many internal factors, as well as the innumerable contacts in work or daily life, are matters for investigation in every case with such manifestations.

Crusts

Crusts may appear as a predominating characteristic in various conditions, particularly those in which there has been vesiculation or sufficient inflammatory reaction to remove the horny layer. Thus, crusts are present in an oozing dermatitis or eczema, or fungus infections, impetigo, etc., as well as in cases of deeper involvement of syphilis and carcinoma.

Fissures

Fissures may be present as characteristic features of an eczema or dermatitis, of psoriasis, fungus infections, etc.

I wish to present as the type patient of this group Mrs. G., a woman of forty-four. She has a curious fissure between the third and fourth finger of the right hand, of five years' duration. This lesion has not been present continuously but she has had repeated attacks. The present lesion began two months ago. Questioning shows that her hands are much in soap and water for dishwashing, clothes, etc.

This condition is found relatively often in houseworkers with relatively fat hands and close approximation of fingers. It is more frequently seen in the Jewish and Italian races. From the

edges of this lesion were obtained microscopically a yeast, and cultures showed monilia albicans. This is a yeast infection with a long name, erosio interdigitalis blastomycetica. These are really erosions and not true ulcerations and have characteristically affected the third interspace of pudgy-handed housewives as a rule.

Another yeast infection of the hand should be mentioned. Many chronic paronychias occurring in housewives, dishwashers, etc., will show monilia on microscopic examination of the pus from the base of the nail, and culture will confirm these findings. They usually respond well to sodium perborate soaks and the application of a paste of the same material covered with a rubber finger cot.

Infectious eczematoid dermatitis also appears as an erosion but the picture is quite a different one. Impetigo may also result in sharply outlined erosions of the hands, usually also as a part of the general picture.



Fig. 11. Erosio interdigitalis blastomycetica.

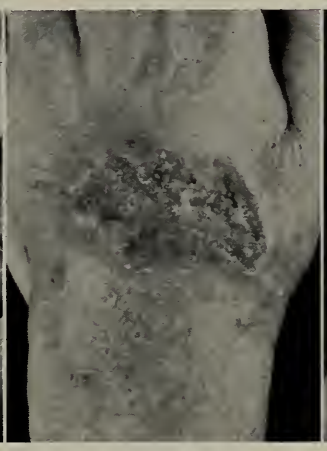


Fig. 12. Epithelioma.



Fig. 13. Syphilis, gumma.



Fig. 14. Syphilis, primary, of the finger. Chancre.

Ulcerations

TABLE VIII. HANDS—DISEASES CAUSING ULCERATION

- Carcinoma
- Syphilis
  - Primary
  - Late
- Chemicals
  - Chrome
  - Lime
- Unusual infections
  - Tuberculosis
  - Tularemia

Ulcerations of the hands are not particularly frequent. Mr. H., a man of seventy-two showed a large ulceration on the dorsal surface of one hand. He states that two years before he had a nail puncture on the back of the hand. At this site a small wart-like area appeared and persisted. Nine months ago a screen door in slamming cut off this wart and the area has never healed but has gradually enlarged. He showed a sluggish ulcer with the hard edge and a biopsy was reported as epidermoid carcinoma, grade I. The lesion did not respond satisfactorily to radiation and the area was finally excised.

Other types of ulceration may appear on the hands.

Similar lesions may appear on hands which have been exposed to too much x-ray, developing at the site of keratoses on the atrophic pigmented skin which follows years after such overexposure. Late syphilis may present ulcerated lesions, either as a gumma or as part of a nodular process. An occasional primary lesion of syphilis on the hands or fingers should not be forgotten as the cause of a localized ulceration. Tuberculosis occasionally occurs. Chrome and lime are also causes of chronic ulceration associated with occupation. It is hardly necessary to comment on the potential seriousness of active ulceration on the hands and the need of accurate diagnosis and proper treatment.

Scars

TABLE IX. DISEASES CAUSING SCARRING

- Trauma
  - Mechanical
  - Thermal
- Infections
- Syphilis
- Keloid
- Radiation
- Epithelioma
- Varicella

Scars on the hands are always of interest. They call for interpretation as to the previous manifestations.

Mr. Charles I. came in with extensive scarring of both arms and hands which have become considerably thickened over a period of months. There was considerable hypertrophic scarring on both arms. He gave a story of receiving a burn while handling gasoline at a filling station and the present lesions appeared in these scars which resulted.

Here is another example of an industrial factor in hand conditions. Filtered x-ray treatment will produce good results in most new keloids, especially in the younger age group.

Atrophic scarring and telangiectasia appearing long after exposure to radiation is another example of this group.

The scarring of syphilis, with its atrophic, thin, white, pliable, often sharply outlined scars is a matter which deserves careful consideration and investigation of the individual. Scars of trauma usually have a linear or artificial appearance. In older individuals the scars following treatment of epithelioma appear especially, I feel, in individuals who have worked out of doors.

Scars are often the most interesting lesions. They are the end result and call for a careful evaluation of previous history and of treatment in the light of data developed upon examination.

Pigment

Pigmentary disturbances on the hands also call for interpretation. There is failure to produce pigment as found in vitiligo which commonly appears on the hands. There is accentuation of pigment in moles and pigmented keratoses and the pigmented areas in individuals as they grow older. The characteristic pigmentation of pellagra is striking. The pigmentation which appears in the multiple hemorrhagic sarcoma of Kaposi is conspicuous and appears more frequently on the feet, although also on the hands.

Miscellaneous Types

It would be possible to speak of other diseases appearing on the hands less often, the rounded sensitive glomus tumor, the tense single thick-walled synovial cyst at the base of the nail, the vascular changes of Raynaud's Disease, the wet soft hands of hyperidrosis, the verrucous manifestations of tuberculosis and blastomycosis, et cetera, but these are unusual manifestations in any practice.

To some this review may seem elementary, but I realize that in the busy practice of general medicine with many cases of serious illness presenting themselves for the physician's attention there is little opportunity to accumulate much experience with any one condition in a special field. I have, therefore, undertaken this discussion of hands in order to contribute experience and offer aid in dealing with these problems of every-day work.

Summary

Cases have been used to demonstrate the various manifestations of skin disease on the hands.

Emphasis has been placed on the value of a careful analysis of the lesions present, and a detailed history.

Features of differential diagnosis have been pointed out.

The significance of industrial factors has been stressed.

The infections, epidermophytosis, scabies and syphilis form an important group and deserve careful consideration.

EXTENSION OF MEDICAL SERVICE

It was the consensus of opinion of the Board of Trustees of the National Physicians Committee for the Extension of Medical Service that recent developments in Europe and the changed conditions in the United States have added immeasurably to the importance of the vital task that has been undertaken by the Committee.

It is hoped that representatives in their respective states will take the initiative and vigorously organize to place wide-spread support behind the committee in order that the speed and effectiveness of its initial operation can be maintained.

The extent of our effort and the degree of our effectiveness will be determined by the extent to which the rank and file of physicians volunteer financial support. Directly and indirectly approximately 20,000 physicians have contributed funds in amounts ranging from $1.00 to $100.00, but averaging about $9.50 for direct contributions.

To carry forward our work and add an element of stability to operations, we need 2,000 physicians who will contribute $10.00 to a Foundation Fund.

You are invited to become one of these Foundation Contributors. Your support is needed—now. Your coöperation is vitally important. Twenty thousand other self-sacrificing doctors are asking for your help.

Erysipelas

Sulfanilamide Treatment*

By F. H. Top, M.D.,
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and
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■ The therapeutic management of erysipelas has not been very successful in the past for a number of reasons. First, the disease affects primarily persons at the extremes of life, namely, infants and the elderly, who are difficult to treat no matter what acute infection they contract. Second, a clinical attack results in very short-lived immunity. Third, and perhaps largely due to the second reason, antiserum could not very well be expected to aid and actually has not aided very materially in the treatment of the disease. Fourth, local attempts to limit the spread of the infectious process have all met with failure. Little wonder, then, that when sulfanilamide was discovered as an apparently effective therapeutic agent in the treatment of beta hemolytic streptococcus puerperal infection, this drug should have been tried in the treatment of erysipelas.

In evaluating the efficacy of any therapeutic agent, one would like optimally to have the study controlled, preferably by alternating treated cases with untreated controls. In order to do this satisfactorily for erysipelas, one would need a large number of cases in each group because of the variability in ages affected and because of the number of clinical types. Thus far, reports of cases of erysipelas treated with sulfanilamide comprise those mentioned in a tabulation of numerous infections treated with this drug or the sole reporting of an uncontrolled group of cases. There is of recent date one exception noted in the literature, and this is the study reported by Snodgrass and Anderson,[3] who observed the value of sulfanilamide in the treatment of 135 cases of erysipelas as compared to ultraviolet irradiation of the same number of cases. This method of evaluation is to be commended. These authors found that sulfanilamide therapy, though not dramatic, gave decidedly more favorable results with respect to limitation of spread. Others,[1,2,4,5] like ourselves, have treated relatively large groups of patients but have not undertaken a strictly alternate treated and control case study. Most authors report favorable results in the treatment of erysipelas with sulfanilamide.

Material

During the spring of 1937 treatment of various streptococcal infections with sulfanilamide was begun. Results obtained with the first dozen cases of erysipelas were promising and later striking, when dosage was better understood. A control study for a period of a year was not feasible because the number of erysipelas dismissals varies between 125 and 175 annually. Furthermore, the remarkably successful treatment of two infants under two months of age made it difficult for the medical staff to withhold sulfanilamide for all cases of erysipelas. Although the two groups are not strictly comparable in point of time and numbers, erysipelas cases treated with sulfanilamide during the period beginning with May of 1937 and extending to April 1, 1939, are compared with cases treated with antitoxin during a period of about the same length just prior to May, 1937, extending back and including 1936. The number of patients treated with antitoxin in the former period was seventy-six and the number treated with sulfanilamide in the latter period was 135. Because of this difference in group totals, the factors studied will be represented by proportion rather than by actual number of cases.

Status of Cases

Although selection plays a part in this series of cases, yet this appears less of a factor than

*From the Communicable Disease Service, Herman Kiefer Hospital, and the Division of Communicable Diseases and Epidemiology, Detroit Department of Health.

This study was aided by WPA Project No. 82-4-120.

The sulfanilamide used in this study was furnished by Merck and Company.

TABLE I. TREATMENT OF ERYSIPELAS

Herman Kiefer Hospital

Status of Cases Treated

Period Group Total cases	1936-37 Antitoxin 76	1937-39 Sulfanilamide 135
Age	Per cent of all cases treated	
0 - 2 yrs.	3.9	12.6
0 - 4 yrs.	5.3	13.3
5 - 24 yrs.	11.8	14.1
25 - 54 yrs.	52.6	50.3
55 - 74 yrs.	26.3	19.3
75 yrs.	4.0	3.0
Color and sex		
White, male	46.0	51.8
White, female	46.0	43.7
Colored, male	6.6	3.0
Colored, female	1.4	1.5

TABLE II. TREATMENT OF ERYSIPELAS

Herman Kiefer Hospital

Status of Cases Treated (cont'd)

Period Group Total cases	1936-37 Antitoxin 76	1937-39 Sulfanilamide 135
Type of disease	Per cent of all cases treated	
Face	82.9	78.5
Body	—	19.3
Extremities	11.8	2.2
Others	5.4	—
Associated conditions	36.8	41.5
Average day of disease on admission	3.8	3.5
Average admission temperature	102.6°F.	101.8°F.

one would anticipate. In order to test the comparability of the two groups, certain status-on-admission factors are examined to determine whether they vary significantly. Although the data, because of size and composition, do not warrant application of statistical measures of significance, inspection should give an approximate answer. Such factors as age, sex, color, type of disease, proportion of cases with associated conditions, the average day of disease on admission to hospital, and the average admission temperature, if approximately the same, should serve as a means of determining the comparability of the two groups. Tables I and II show the status of the two treatment groups.

Age. Standard age groups were not utilized because of the peculiar age distribution of erysipelas cases. Rather broad age bands were utilized with the exception of the 0-4 age group. From the table, it is obvious that the distribution is about the same for all groups. The proportion of cases treated with sulfanilamide is greater in the age band 0-4, but this is partially offset by a greater proportion in the 55-74 age band of cases treated with antitoxin.

Cases Under Three Years.—**Because infant erysipelas is a real test of a therapeutic agent, one would wish to know the proportion of infants appearing in each treatment group. In this respect sulfanilamide does not suffer in comparison with antitoxin, for 12.6 per cent of all cases so treated were under the age of three years compared to 3.9 per cent of the cases treated with antitoxin.**

Color and Sex.—There is no significant difference noted with respect to variation in color and sex between the two groups.

Type of Disease.—There is but slight variation in the proportion of cases with facial erysipelas, and this type represented nearly four-fifths of the cases in each group. The body type forms a small proportion of the sulfanilamide group, while none of this type is found in the antitoxin group. On the other hand, a small proportion of other types is found in the antitoxin group and none in the sulfanilamide group.

Associated Conditions.—Many patients admitted with erysipelas are suffering with an associated condition, and this is particularly true of elderly persons. Such conditions as cancer, diabetes, and heart disease are frequently a greater hazard to life in the elderly than an attack of erysipelas. No group should, therefore, contain a disproportionate number of cases with important associated conditions. From the table it is evident that the groups do not vary appreciably in this respect.

Average Day of Disease on Admission.—The day of illness on which a patient is admitted to hospital should be about the same for each group. Cases admitted early in the course of infections are likely to show less involvement than cases admitted a few days later, while those admitted later than the seventh day are likely to go to the hospital because of complications. The average number of days ill before admission is the same for both the antitoxin and sulfanilamide groups.

TABLE III. TREATMENT OF ERYSIPELAS

Herman Kiefer Hospital

Result of Cases Treated

Period Group Total cases	1936-37 Antitoxin 76	1937-39 Sulfanilamide 135
Amount of spread	Per cent of all cases treated	
None	34.2	71.8
Slight	15.8	14.1
Moderate	39.5	14.1
Marked	10.5	—
Period of illness		
Average days fever maintained	6.1	2.6
Average days in hospital	14.3	7.5

Average Admission Temperature.—Fever is not a criterion which is valuable by itself, for there is considerable variation in individual reaction to infection, particularly with reference to temperature elevation. This is particularly true when but one reading, and that the first, is used as a basis of comparison. However, when the two groups are compared with respect to this factor, there is less than a degree difference between them.

Results

The effect of sulfanilamide and antitoxin on the spread of the lesion, the average duration of fever, the average number of days in hospital, the proportion of cases with complications, the number of deaths, and the fatality rate is shown in Tables III and IV.

Spread.—Spread of the lesion is a clinical criterion of value in the treatment of erysipelas. A comparison of the effect of antitoxin and sulfanilamide on spread of the lesion is made in Table III. Here it will be noted that the proportion of sulfanilamide cases which showed no spread is twice that of cases which received antitoxin. The proportion of cases with slight spread was about the same for both groups, but moderate spread was noted twice as frequently among the antitoxin-treated as among the sulfanilamide-treated. Marked spread was noted among 10.5 per cent of antitoxin-treated, whereas none of the patients receiving sulfanilamide showed this degree of extension.

Average Days of Fever Maintained.—A marked difference is noted in the number of days that temperature was maintained following institution of treatment with antitoxin or sulfanilamide. The average period is 6.1 days for the former compared to 2.6 days for the latter.

TABLE IV. TREATMENT OF ERYSIPELAS

Herman Kiefer Hospital

Result of Cases Treated (cont'd)

Period Group Total cases	1936-37 Antitoxin 76	1937-39 Sulfanilamide 135
	Per cent of all cases	
Per cent having complications	21.1	13.3
Fatality rate	3.9	5.9

Average Days in Hospital.—**The number of days in hospital for the antitoxin-treated group was 14.3 days. It is surprising to find that the number of days in hospital for the sulfanilamide-treated cases is 7.5 days. This difference is a distinct advantage to the patient and his purse. In a hospital where a vast majority of patients are indigent or semi-indigent, the saving in the cost of hospitalization to the city is tremendous.**

Complications.—Complications in this study are limited to conditions which arise after the patient is admitted to hospital. In Table IV, the proportion of complications occurring in the antitoxin-treated cases was 21.1, compared to 11.3 in the sulfanilamide-treated group.

Deaths at all Ages and Fatality Rate.—Fatality rates are not good indices of the effect of a therapeutic agent among elderly erysipelas patients, for no matter what the associated condition or complication responsible for a fatality, all such deaths are credited to erysipelas. This is illustrated by two recovered erysipelas patients in the sulfanilamide group whose irrepressible activity on the day of dismissal caused death by cerebral accident in one instance and by cardiac collapse in the other. One patient was seventy-six years of age and the other eighty-four years old. Both are included in the deaths among the sulfanilamide group. If the two accidental deaths mentioned above were removed from the sulfanilamide group, the fatality rates for the antitoxin and sulfanilamide groups would be about the same. It is remarkable that no infant death has occurred since sulfanilamide has replaced antitoxin on the service.

Dosage

In general, the dose of sulfanilamide used in the treatment of erysipelas is not as large as that given to patients with streptococcus septicemia or meningococcus meningitis. About ½ to ¾ of a grain of sulfanilamide per pound of body weight per day is administered for a period of four to six days. This amount of sulfanilamide rarely gives a blood sulfanilamide level exceeding 5 mg. per 100 ml. (c.c.). A large initial dose consisting of one-third of the daily dose may be given followed by a uniform maintenance dose given at four-hour intervals day and night. Infants demand slightly higher amounts per unit of body weight. Elderly individuals must be carefully watched for excessive dosage because kidney elimination may be impaired. It is advisable to obtain a blood sulfanilamide level every other day. The reading should not exceed 15 mg. per 100 ml. when the blood has been removed just prior to the next dose. The blood picture should be closely followed and a complete blood count should be determined every other day. Anemia or severe leukopenia may develop quickly.

Summary

If it be granted under the circumstances that the treatment groups are roughly comparable, then it follows that:

1. For the factors tested with respect to the admission status of patients there was no remarkable difference between the antitoxin and sulfanilamide groups

2. That except for the fatality rate the sulfanilamide-treated group fared better with respect to results of treatment than did the antitoxin-treated group, and

3. That although the groups are relatively small, from previous reports in the literature, and from this study, one is justified in stating that the use of sulfanilamide has proved of distinct value in the treatment of erysipelas.

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Neoprontosil

In the Treatment of Acute Upper Respiratory Infections

By Russell M. Atchison, M.D.
Northville, Michigan

R. M. Atchison, M.D.
A.B., University of Michigan in 1931. M.D., University of Michigan Medical School in 1935. Staff member, Mt. Carmel Hospital, Detroit. Member, Michigan State Medical Society.

■ In my practice we have initiated a method of treatment of topical application of a neoprontosil solution, consisting of a 2 per cent aqueous solution of the drug. The group of patients which I have treated, totaling about 100, fall into no particular age group and into no particular stage of the infection. The treatment may be used with little inconvenience other than the color the drug imparts to the parts treated. Head colds in the early stages before marked nasal congestion occurs, and those in which the nasal congestion is acute, respond readily to the treatment. No other medication is used unless the patient complains of sinus congestion, headache or fever, for which he is treated in the routine manner.

The treatment consists of a nasal spray one to three times daily with the aqueous solution of neoprontosil. The spray should be applied until the patient coughs or gags, signifying that the solution has passed through the nares and has gone into the throat. It is well to have a rubber apron covering the patient at this time so that he will not stain his clothing. A stinging sensation is imparted to the mucous membrane of the nose, similar to that which would be derived from a normal salt solution.

Results

Of the approximately 100 patients in the acute stages of a head cold I have treated, not one has failed to respond. The nose became clear and apparently relieved of severe congestion within an hour, and those previously unable to sleep because of discomfort were then able to do so. It was not necessary for any of them to quit their work.

Conclusion

The use of a neoprontosil nasal spray in the treatment of acute rhinitis will do a great deal

in reducing the number of cases of bronchial pneumonia and chronic sinusitis due to acute upper respiratory infections.

Suggestions

Further work should be done to clarify the actions of this drug on the mucous membrane of the nose, especially the following:

1. Absorption of the drug by the mucous membrane.
2. Change in character of the microscopic flora.
3. The incidence of chronic sinusitis and bronchial pneumonia following this treatment.
4. Prevention of the common childhood diseases, which gain entrance through the mucous membrane of the upper respiratory tract.

Sodium Morrhuate

Severe Reaction to Injection

By Maurice Kadin, B.S., M.D.
Calumet, Michigan

MAURICE KADIN, M.D.
B.S., University of Chicago in 1933. M.D., Rush Medical College in 1937. Member Staff, Calumet Memorial Hospital. Member, Michigan State Medical Society.

■ Consideration is not generally given to the possibility of accidents following the use of sodium morrhuate in the treatment of varicose veins. Several reports of severe anaphylactoid reactions following use of this sclerosing agent have appeared in the literature.[1,2,3,4,5] The dangers involved in this common procedure should receive greater emphasis, and it should be recognized that these dangers can be eliminated by the routine skin testing of all patients prior to injection of these agents. Adrenalin hydrochloride should be immediately available.

An unmarried woman, aged thirty-three, gave a history of having had treatment for varicose veins by injection in 1937, on which occasion "she had become unconscious," "the doctor had a lot of trouble reviving her," and "refused to treat her further." In 1939, another physician treated her varices by saphenous ligation at the fossa ovale, followed by injection of sodium morrhuate into the distal portion of the vein. I saw her in April, 1939, and found several small varicose veins over the calf of the left leg (previously ligated vein). Two cubic centimeters of sodium morrhuate were injected, and pressure applied to the area, when suddenly she "felt faint" and wanted to lie down. An injection of coramine was given subcutaneously, but no improvement occurred, and respirations became difficult. The pulse was rapid. Coramine was repeated, but she became steadily worse; the face and neck were extremely cyanotic, respiration sterterous and labored, with audible wheezing. At this time the pulse became faint, the pupils dilated and frothy mucous appeared at the lips. Adrenalin hydrochloride was then given in 1 c.c. doses, both intravenously and intramuscularly, but still she became worse, and respiration ceased, so that artificial respiration was begun. Only occasional beats were heard at the apex. Injection of additional 1 c.c. doses of adrenalin, together with artificial respiration brought about a gradual recovery, so that the patient became conscious about 45 minutes after the onset of the reaction. She refused hospitalization and was taken home.

Ephedrine sulfate, grains ½, was given every four hours during the night. On awakening marked swelling and itching, especially of the hands and face, was present, and these were relieved by injection of adrenalin and oral administration of ephedrine.

Subsequently the patient received treatment from another physician, who did skin tests prior to injection, and found sensitivity to sodium morrhuate, but not to quinine and urea hydrochloride, so that it was possible to use the latter substance as the sclerosing agent.

There was no history of any sensitivity or allergy in either the previous history or the family history, except for the episode of unconsciousness following the previous injection in 1937.

Toxic reactions to quinine and urea have received much greater attention than reactions to sodium morrhuate. Skin testing of all patients prior to injection of any of these agents will remove the possibility of any occurrence of such severe or mild reactions, and will repay the effort and inconvenience.

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EDITORIAL

HERE'S WHAT THEY DID TO YOU

✶

July, 1939

The Crippled Children's Commission cut thirty-three per cent from Schedule A (without consultation with the medical profession).

✶

October, 1939

Schedule A was restored by the Crippled Children's Commission (without consultation with the Administration).

✶

November, 1939

You were accused of being hi-jackers by a spokesman for the Administration.

✶

December, 1939

You were told to take it and like it (by the legal advisor to Governor Dickinson).

✶

March, 1940

A decrease of forty per cent was ordered by the Administration in spite of your protests.

✶

Now

What are **you** going to do on September 10 at the Primaries?

And on November 5 at the Election?

FREE CHOICE OF PHYSICIANS

■ In the Welfare Act passed by the last legislature it is specifically stated that relief clients who receive their aid from the funds of the State of Michigan may have free choice of physicians.

Although this law has been publicized to a considerable degree in the Secretary's Letters and in THE JOURNAL, a recent survey showed that in eleven counties this provision was, to a greater or lesser degree, violated.

It is the privilege and duty of each county society to object to violations of this law through the medium of the county or state Social Welfare Commission.

A principle is only worth the interest it draws.

* * *

NO "MUNICH" IN MEDICINE

■ **Medical men do not need to be told the value of preparedness. The lessons taught by the first World War and by succeeding campaigns in the rest of the world have not been and will not be disregarded as were the new tactical discoveries.**

The House of Delegates of the American Medical Association in New York appointed a committee of fifteen truly American medical men to prepare the profession for possible war service. They have sent you a questionnaire in order to properly assign you to the right service if war comes.

The immediate return of your completed questionnaire will facilitate the establishment of a program for medical service in war which will go far toward saving the lives of our wounded and avoiding the confusions and inefficiencies which were reported by the medical veterans of 1918.

President's Page

OUR SEVENTY-FIFTH ANNIVERSARY

BUILDED on the foundation of earlier attempts to form and maintain a permanent organization, of which the most successful and most enduring was the Medical Society of the Territory of Michigan, founded in 1819, your Society celebrates its seventy-fifth consecutive annual meeting in September.

For three quarters of a century it has endeavored to fulfill the most important purposes of such a scientific body. By constant effort it has striven to raise the standards of medical practice that the medical needs of the people of this state might be adequately satisfied. It has vigorously urged the raising of the standard of medical education. It has advocated and worked for the passing of such necessary laws as would protect the sick from the ministrations of the incompetent doctor, the charlatan and the quack.

Recognizing the need of the practicing physician for further training, it has promoted postgraduate education. It has furthered and sponsored those activities, both state and local, which look to the improvement of health and social conditions.

To fully appreciate the advances made in medicine, one must consider the conditions existing seventy-five years ago. Regulations for the practice of medicine were practically nil. The great shortage of physicians after the Civil War called for the repeal of such licensure regulations as existed, and the field was left wide open for unrestricted practice by any one who professed knowledge of human ills.

So little emphasis was placed upon the collegiate education of the physician that the University of Michigan, the chief center of culture in the Middle West, required but two periods of six months each for a medical degree, which was about half as much as was required for a degree in pharmacy, while the requirements for a degree in civil and mining engineering were a full four years of study.

It is an important rôle that the Michigan State Medical Society has played in the development of Scientific Medicine and its application in this state, and there remains, as there must always remain, much to do. This is an important year. It seems likely to be an epochal year. I urge that you look upon your attendance at the Detroit meeting as an obligation both to yourself and to your Society.

Burton P. Corbus

President, Michigan State Medical Society.

Michigan State Medical Society

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1888—*S. S. French, Battle Creek
1889—*G. E. Frothingham, Detroit
1890—*L. W. Bliss, Saginaw
1891—*George E. Ranney, Lansing
1892—*Charles J. Lundy (died before taking office)
*Geo. V. Chamberlain, Flint, Acting President
1893—*Eugene Boise, Grand Rapids
1894—*Henry O. Walker, Detroit
1895—*Victor C. Vaughan, Ann Arbor
1896—*Hugh McColl, Lapeer
1897—*Joseph B. Griswold, Grand Rapids
1898—*Ernest L. Shurly, Detroit
1899—*A. W. Alvord, Battle Creek
1900—*P. D. Patterson, Charlotte
1901—*Leartus Connor, Detroit
1902—*A. E. Bulson, Jackson
1903—*Wm. F. Breakey, Ann Arbor
1904—*B. D. Harison, Sault Ste. Marie
1905—*David Inglis, Detroit
1906—*Charles B. Stockwell, Port Huron
1907—*Hermon Ostrander, Kalamazoo
1908—*A. F. Lawbaugh, Calumet
1909—*J. H. Carstens, Detroit
1910—*C. B. Burr, Flint
1911—*D. Emmett Welsh, Grand Rapids
1912—*Wm. H. Sawyer, Hillsdale
1913—*Guy L. Kiefer, Detroit
1914— Reuben Peterson, Ann Arbor
1915—*A. W. Hornbogen, Marquette
1916— Andrew P. Biddle, Detroit
1917— Andrew P. Biddle, Detroit
1918— Arthur M. Hume, Owosso
1919— Charles H. Baker, Bay City
1920—*Angus McLean, Detroit
1921—*Wm. J. Kay, Lapeer
1922—*W. T. Dodge, Big Rapids
1923— Guy L. Connor, Detroit
1924—*C. C. Clancy, Port Huron
1925—*Cyrenus G. Darling, Ann Arbor
1926— J. B. Jackson, Kalamazoo
1927— Herbert E. Randall, Flint
1928— Louis J. Hirschman, Detroit
1929— J. D. Brook, Grandville
1930—*Ray C. Stone, Battle Creek
1931—*Carl F. Moll, Flint
1932— J. Milton Robb, Detroit
1933— George LeFevre, Muskegon
1934—*R. R. Smith, Grand Rapids
1935— Grover C. Penberthy, Detroit
1936— Henry E. Perry, Newberry
1937— Henry Cook, Flint
1938— Henry A. Luce, Detroit

*Deceased.

THE 75TH ANNUAL MEETING
DETROIT — 1940



B. R. Corbus, M.D.
Grand Rapids
President



H. R. Carstens, M.D.
Detroit
Chairman of The Council



O. D. Stryker, M.D.
Fremont
Speaker of House of Delegates

OFFICIAL CALL

THE Michigan State Medical Society will convene in Annual Session in Detroit, Michigan, on September 24, 25, 26, 27, 1940. The provisions of the Constitution and By-laws and the Official Program will govern the deliberations.

Burton R. Corbus, M.D.
President

Henry R. Carstens, M.D.,
Chairman of The Council

O. D. Stryker, M.D.,
Speaker

Attest:
L. Fernald Foster, M.D.,
Secretary



L. Fernald Foster, M.D.
Bay City
Secretary



Wm. A. Hyland, M.D.
Grand Rapids
Treasurer



P. R. Urmston, M.D.
Bay City
President-elect

DIAMOND ANNIVERSARY—MICHIGAN STATE MEDICAL SOCIETY

Outline of General Assembly Program

Detroit, September 25, 26, 27, 1940

	Wednesday, September 25	Thursday, September 26	Friday, September 27
A. M. 9:30 to 10:00	Wallace M. Yater, M.D. Washington, D. C. Medical subject		P. A. Neal, M.D., Washington, D. C. Industrial Health subject
10:00 to 10:30	Hugh H. Young, M.D. Baltimore, Maryland Surgical subject		Henry C. Sweany, M.D. Chicago, Illinois Tuberculosis subject
10:30 to 11:00	INTERMISSION TO VIEW EXHIBITS	SEVEN SECTION MEETINGS THURSDAY MORNING	INTERMISSION TO VIEW EXHIBITS
11:00 to 11:30	Arthur Elliott, M.D. Chicago, Illinois Medical subject		Samuel A. Cosgrove, M.D. Jersey City, N. J. Maternal Health subject
11:30 to 12:00	J. Deryl Hart, M.D. Durham, North Carolina Surgical subject		H. Flanders Dunbar, M.D. New York City Mental Hygiene subject
P. M. 12:00 to 12:30	Dwight Anderson, LL.B. New York City		L. Emmett Holt, M.D. Baltimore, Maryland Child Welfare subject
12:30 to 1:30	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS
1:30 to 2:00	Paul A. O'Leary, M.D. Rochester, Minnesota Dermatological subject	Walter Ivan Lillie, M.D. Philadelphia, Pennsylvania Ophthalmological subject	Ambrose L. Lockwood, M.D. Toronto, Ontario Surgical subject
2:00 to 2:30	John H. Musser, M.D. New Orleans, Louisiana Medical subject	John G. Downing, M.D. Boston, Massachusetts Dermatological subject	Chevalier L. Jackson, M.D. Philadelphia, Pennsylvania Otolaryngological subject
2:30 to 3:00	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS
3:00 to 3.30	Ralph M. Waters, M.D. Madison, Wisconsin Anesthesia subject	Thos. T. Mackie, M.D. New York City Medical subject	John D. Camp, M.D. Rochester, Minnesota Radiological subject
3:30 to 4:00	Charles F. McKhann, M.D. Boston, Massachusetts Pediatric subject	Joseph Stokes, Jr., M.D. Philadelphia, Pennsylvania Pediatric subject	Jacob P. Greenhill, M.D. Chicago, Illinois Obstetrical subject
4:00 to 4:30	Richard N. Pierson, M.D. New York City Obstetrical subject	Edw. Wm. Alton Ochsner, M.D. New Orleans, Louisiana Surgical subject	Reginald Fitz, M.D. Boston, Massachusetts Medical subject
4:30 to 6:00	VIEW EXHIBITS	VIEW EXHIBITS	END OF CONVENTION
6:00 to 8:00	Presidents' Banquet	Alumni and Fraternity Dinners	
8:00 to 10:00	Presidents' Night Rufus I. Cole, M.D. Mt. Kisco, New York	Smoker for Members	

All General Assemblies will be held in the Grand Ballroom, Book-Cadillac Hotel, Detroit.

WEDNESDAY MORNING
September 25, 1940

First General Assembly

Grand Ballroom, Book-Cadillac Hotel

ROY C. PERKINS, M.D., Presiding

L. FERNALD FOSTER, M.D., and T. I. BAUER, M.D., Secretaries

A. M.

9:30 "Surgery of the Heart and The Heart in Surgery"

WALLACE M. YATER, M.D., Washington, D. C.



W. M. YATER

M.D., Georgetown University, 1921. After two years' internship he engaged in general practice in Washington, D. C., for four years, then spent several years as a Fellow in Medicine of the Mayo Foundation, Rochester, Minnesota. He returned to Washington, D. C., as Associate Professor of Medicine of Georgetown University School of Medicine. In 1931 he became Professor and Head of the Department of Medicine of the same school, a position which he has occupied ever since. He is also physician-in-chief at Georgetown University Hospital and at Gallinger Municipal Hospital. He is co-author of "Symptom Diagnosis" and author of "The Fundamentals of Internal Medicine." He has published more than 120 scientific articles.

Surgical procedures may have important effects upon the heart, either by operations upon different parts of the body or by operations upon the heart itself. Of the former, the most important is the cure of heart failure due to exopthalmic goiter or toxic adenoma of the thyroid gland by means of sub-total thyroidectomy. A less common procedure is the removal of an arteriovenous fistula, usually traumatic in origin, with relief of cardiac strain produced by the fistula. Although essential hypertension is not a disease of the heart, nevertheless the heart is often strained to the point of failure by its presence; certain operations are being performed with partial success in the relief of essential hypertension.

Of the operations on the heart itself those for traumatic lesions will not be discussed. Purulent pericarditis usually requires surgical drainage, but the mortality is still high. Pericardiectomy even when incomplete sometimes produces remarkable results in cases of chronic constrictive pericarditis. The hardest cases to work with are usually those associated with extensive calcification of the pericardium. Operations performed for the purpose of improving the myocardial blood supply are the pectoral muscle-graft operation of Beck and the omental graft operation of O'Shaughnessy. The practicability and efficacy of these operations are still to be determined. A few operations have been performed to ligate the patent ductus arteriosus. Removal of emboli from the large pulmonary arterial trunks has been successful in some cases.

Major operations may be performed on patients with heart disease provided there is no congestive heart failure present and a skillful anesthetist is available. Many cardiac patients go through operations successfully. Except in cases of urgent emergency all evidence of congestion should be removed if possible before operation.

10:00 "Medical and Surgical Aspects of Diseases of the Prostate"

HUGH HAMPTON YOUNG, M.D., Baltimore, M.D.



H. H. YOUNG

M.D., University of Virginia Medical School. He is professor of urology at the Johns Hopkins University Medical School, and visiting urologist to the Johns Hopkins Hospital. Director of Brady Urological Institute, Johns Hopkins Hospital. Author of over three hundred papers, and has written the following books: "Hypertrophy and Cancer of the Prostate"; "Practice of Urology"; a three-volume textbook, with David M. Davis; "Urological Roentgenology," with Charles A. Waters; and "Genital Abnormalities, Hermaphroditism and Related Adrenal Diseases." Member of the American Urological Association, American Association of Genito-Urinary Surgeons and the International Society of Urology. Served as president of each of these organizations. He also belongs to many other medical societies in this country and abroad. Fellow of the Royal College of Surgeons of Ireland. During the World War, Dr. Young was Director of the Division of Urology, A.E.F. and received the D.S.M.

Interest and knowledge of prostatic examinations should be possessed by general practitioners who are usually the first consulted. A simple rectal palpation of the prostate and vesicles may detect diseases which can be quickly cured: prostatitis, prostatic calculi, benign hypertrophy, carcinoma often sufficiently early for radical cure, tuberculosis, sarcoma, cysts, and other rarer conditions. Carcinoma occurs in more than 14 per cent of males over 45 years of age and may often be recognized by simple rectal examination. By radical operation a large percentage of these early cases have been cured. By simple perineal exposure a positive diagnosis can be made and in very early cases hemiprostatectomy is sufficient to obtain a cure. If the disease proves benign, simple enucleation of the hypertrophied lobes and neat surgical closure of the prostatic wound is the quickest, most satisfactory, and in expert hands the safest operation for the larger prostatic hypertrophies. For small obstructions at the vesical orifice, the punch operation, or some of its modifications, is quite satisfactory. Only by complete mastery of both prostatectomy and transurethral resection can the patient be given scientific operative treatment in all diseases of the prostate.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Arterial Hypertension, Forty Years in in Retrospect"

ARTHUR R. ELLIOTT, M.D., Chicago, Illinois

M.D., Queen's University, Canada, 1892; LL.D., Queen's University, 1926. Clinical Professor of Medicine, Rush Medical College, University of Chicago. Senior Attending Physician and Head of Medical Division of St. Luke's Hospital, Chicago.

Beginning with clinical experience in arterial hypertension before the days of the clinical sphygmomanometer, an attempt will be made to pass in review the development of our present clinical concept of that condition. Appraisal of progress made and critique of both medical and surgical therapy to "bring down the blood pressure."

11:30 "Self-Inflicted Injuries"

J. Deryl Hart, M.D., Durham, North Carolina



J. D. Hart

Professor of Surgery, Duke University, School of Medicine; in Charge of Surgical Department, Duke Hospital, Durham, North Carolina. Author of numerous medical publications.

Self-inflicted injuries are more frequent than is commonly suspected. In the presence of unexplained lesions or wounds which, for no apparent reason, fail to heal, one should keep in mind the possibility of self-mutilation. The two most important considerations in making a diagnosis are: 1. Suspect the possibility of self-injury; 2. Obtain prompt healing after removing the wound from all chance of trauma.

A series of cases are reported, a few of which illustrate such injuries occasionally seen by us in the mentally defective, or in those in a position to receive financial gain. The majority, however, have stood to receive no reward other than sympathy, or the pleasure of confounding their family, friends and physicians.

Admission by the patient that the injury is self-inflicted is rare. Such an accusation should never be made without unquestionable proof, and even then it may be preferable without definite statements to make the patient understand that the nature of his trouble is evident to the physician. In the case of certain individuals this knowledge kept in confidence can be used to restrain them from a continuation of self-mutilation though others will persist in their self-mutilation in spite of every treatment, argument, or threat that may be used.

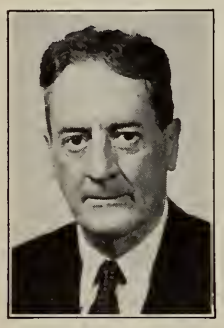
WEDNESDAY NOON
September 25, 1940

Luncheon Meeting, English Room, Book-Cadillac Hotel—12:00 Noon to 1:15 p. m.

P. M.

1:30 "Good Public Relations by the Individual Practitioner of Medicine"

Dwight Anderson, LL.B., New York, N. Y.



Dwight Anderson

LL.B., Western Reserve University. Has been director of the Public Relations Bureau, Medical Society of the State of New York, since the establishment of the Bureau in 1935. During the ten years prior to his present connection he was publicity consultant for the National Tuberculosis Association, the Maternity Center Association, and other organizations engaged in voluntary health work. At various times he has acted in a consulting or executive capacity for the American College of Surgeons, the American College of Physicians, the American Public Health Association, and the American Association of Orthodontists. He is author of the very fine book, "What It Means to Be a Doctor" which was published recently.

THIS IS THE COUNTY SECRETARIES' CONFERENCE TO WHICH ALL M.S.M.S. MEMBERS ARE MOST CORDIALLY INVITED

WEDNESDAY AFTERNOON
September 25, 1940
Second General Assembly

Grand Ballroom, Book-Cadillac Hotel

E. F. Sladek, M.D., Presiding

L. Fernald Foster, M.D., and R. G. Laird, M.D., Secretaries

P. M.

1:30 "Modern Trend in the Treatment of Syphilis"

Paul A. O'Leary, M.D., Rochester, Minn.



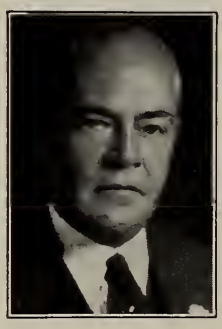
P. A. O'Leary

Professor of Dermatology and Syphilology, Graduate School, University of Minnesota. Director, Department of Dermatology and Syphilology, The Mayo Clinic, Rochester, Minnesota.

The results of the treatment of early syphilis have been so far from ideal that new systems of treatment that are technically simpler, less expensive and less time consuming, have been sought. The so-called five-day plan has some of these features which to date, however, have been offset by serious complications and the need for hospitalization. The period of infectiousness of syphilis as estimated by a survey of a large group of husbands and wives offers a convincing argument of the need for further improvement in the therapy of the disease. Oral bismuth is still in the early experimental phases. A survey of the comparative value of the different types of fever therapy, i.e., malaria versus machine therapy, shows a striking parallelism in certain aspects and differences in others. The indications for fever therapy are well defined.

2:00 "Vitamin and Mineral Requirements in Pregnancy and the Puerperium"

John H. Musser, M.D., New Orleans, La.



J. H. Musser

University of Pennsylvania, B.S. 1905, M.D. 1908. Practiced internal medicine until the War, when he spent two years in the Army. After returning to Philadelphia he became Associate in Medicine at the University of Pennsylvania and on the staff of three of the local hospitals. In 1925 he came to Tulane as Professor of Medicine, where he has been ever since. He also is Senior Visiting Physician at the Charity Hospital, New Orleans. Has at various times been president of the American College of Physicians, and vice president of the American Medical Association. At present is on the American Board of Internal Medicine, and the Council on Medical Education and Hospitals of the A.M.A.

The minor expressions of vitamin deficiency are extremely common in pregnant women. During the puerperium vitamin deficiency may frequently be observed but more common is seen the result of mineral want. Vitamin requirements in pregnancy are greater than normal due to increase in total metabolism or to food idiosyncrasy. During the puerperium the explanation may be attributed to increased excretion from lactation. A discussion of the several vitamins and the more important minerals, which are affected by pregnancy and lactation, will be presented, with accentuation on the minor evidences of any one or combinations of these two substances which may produce poor health.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Methods of Resuscitation"

RALPH M. WATERS, M.D., Madison, Wisconsin



R. M. WATERS

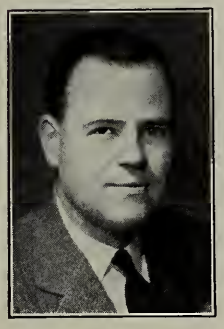
Professor of Anesthesia, Medical School, University of Wisconsin. Director, Department of Anesthesiology, Wisconsin General Hospital.

Older methods of reëstablishing respiratory function will be reviewed. The principles involved in treatment of persons in extremis from acute respiratory depression will be discussed.

The elaborate mechanical devices sometimes used for resuscitation will be contrasted with more simple and available methods. The duties of physicians in the treatment of persons found suffering from acute respiratory depression or arrest will be emphasized. It will be suggested that the custom of relegating such treatment to others than physicians may, in part, result from our own ignorance in the matter.

3:30 "Cyanosis of The New Born"

CHARLES F. MCKHANN, M.D., Boston, Mass.



C. F. MCKHANN

S.B., A.M., M.D., University of Wisconsin. Formerly Associate Professor of Pediatrics and Communicable Diseases, Harvard University Medical School and School of Public Health; Visiting Physician, Infants' and Children's Hospitals, Boston: Consulting Physician, Haynes Memorial Hospital for Contagious Diseases, Boston; and Cape Cod Hospital, Hyannis, Mass.; Visiting Professor of Pediatrics, Peiping Union Medical College, Peiping, China, 1935-36. Newly-appointed Professor of Pediatrics and Communicable Diseases, and Chairman of the Department of Pediatrics and Communicable Diseases, University of Michigan, 1940. Member: American Medical Association, American Academy of Pediatrics, American Pediatric Society, American Society for Clinical Investigation, Society for Pediatric Research (President, 1936), New England Pediatric Society, Massachusetts Medical Society, American Public Health Association, American Board of Pediatrics.

Cyanosis in the newly born may be caused by peripheral circulatory collapse, congenital cardiac defects, atelectasis, edema or hemorrhage into the lungs, but the most common cause is central respiratory depression due to cerebral injury from intrauterine asphyxia or from birth trauma.

Petechial hemorrhages into the brain tissue in asphyxiated babies seem to accompany rather than to cause the nerve cell damage. Birth trauma usually results in gross bleeding from ruptured vessels. Treatment influences favorably cases with gross trauma but with asphyxia prevention rather than treatment is necessary.

BRING YOUR M.S.M.S. MEMBERSHIP CARD TO FACILITATE REGISTRATION.

4:00 "Planned Parenthood: Its Contribution to National Preparedness"

RICHARD N. PIERSON, M.D., New York, N. Y.



R. N. PIERSON

A.B., Princeton University; M.D., College of Physicians and Surgeons, Columbia University, 1918; Formerly Attending Gynecologist and Obstetrician, The Sloane Hospital for Women, New York. Fellow, American College of Surgeons, New York Obstetric Society. Consulting Gynecologist and Obstetrician Stamford Hospital, Stamford, Conn., and Huntington Hospital, Huntington, L. I. President, Birth Control Federation of America.

The American people have been shown by Gallup polls and other studies to be overwhelmingly in favor of the principle of planned parenthood. Most patriotic Americans have deplored a falling birth rate here in the U. S. Preliminary studies of the 1940 census suggest a slowing down or reversal of this trend. Response of Americans toward war refugee children show our determination to provide a civilization to accommodate more healthy, wanted children. It is the responsibility of the doctors to help and encourage the fit to have larger families.

The U. S. Army experience in the Great War showed relatively high percentage of draft physically unfit for military service. Public health officers and the profession generally agree that birth control prescribed for medical reasons will lower maternal mortality and morbidity, improve the quality and health of our children. Better medical and social services throughout childhood will maintain this gain.

Planned parenthood on both the positive and negative side, guided and administered by doctors, will contribute importantly to our National Preparedness.

4:30 End of Second General Assembly

THE EIGHTY-TWO (82) EXHIBITS WILL REMAIN OPEN FOR YOUR INSPECTION UNTIL 6:00 P. M.

WEDNESDAY EVENING

September 25, 1940

Third General Assembly
Public Meeting

Seventh-Fifth Anniversary Dinner

Grand Ballroom, Book-Cadillac Hotel

BURTON R. CORBUS, M.D., Presiding

L. FERNALD FOSTER, M.D., Secretary

PRESIDENTS' NIGHT

P. M.

7:00 The BANQUET, Honoring the President and Past Presidents of the Michigan State Medical Society
Music by the Wayne County Medical Society String Quintet

8:30 1. Call to order by President Burton R. Corbus and presentation of Past-Presidents
Response

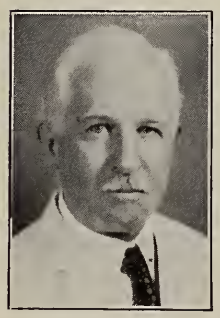
2. Induction of Paul R. Urmston, M.D., Bay City, into office as President of the

Michigan State Medical Society Response

3. **Introduction of the President-Elect and other newly elected officers of the State Society**
4. **Announcements and Reports of the House of Delegates by the Secretary**
5. **President's Annual Address—Burton R. Corbus, M.D., Grand Rapids**
6. **Presentation of Scroll and Past President's Key to Doctor Corbus by President Urmston**

9:00 7. **"Role of Medical Societies in Medical Progress"**

RUFUS I. COLE, M.D., Mt. Kisco, New York

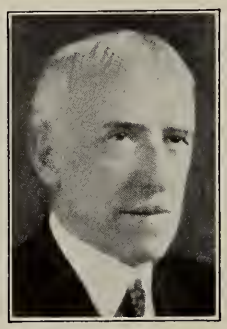


R. I. COLE

B.S., University of Michigan; M.D., Johns Hopkins University, 1899; Sc.D., University of Chicago. Member of the Staff of the Johns Hopkins Medical School and Hospital from 1899 to 1908. Member and Director of the Hospital of the Rockefeller Institute for Medical Research from 1908 to 1937. During this period engaged in research on problems relating to internal medicine, especially infectious diseases. At present, Member Emeritus, Rockefeller Institute; Vice President, New York Academy of Medicine; Member, National Academy of Sciences.

Relation of medical societies to the early scientific societies. Purposes of medical societies as stated by their founders. History of the development of medical societies in this and other countries; relation to academies. Influence of medical societies on scientific advancement, on education and on public health. Their effect on the scientific and cultural development of the individual members and other members of the profession. The importance of collective action through societies on the economic and social status of the physician.

8. **Presentation of Biddle Oration Scroll to Doctor Cole**



A. P. BIDDLE, M.D., Detroit
Patron of Postgraduate Medical Education

10:00 End of Third General Assembly

VIEW THE EXTRAORDINARY EXHIBIT OF 82 SPACES

— PROGRAM of SECTIONS —

THURSDAY MORNING

September 26, 1940

SECTION ON GENERAL MEDICINE

Chairman—PAUL W. KNISKERN, M.D., Grand Rapids
Secretary: T. I. BAUER, M.D., Lansing

English Room, Book-Cadillac Hotel

A. M.

9:00 **"Blood Transfusions and Blood Banks"**
S. M. GOLDHAMER, M.D., Ann Arbor

9:30 **"Clinical Use of Sulfathiozole"**
GORDON MYERS, M.D., Detroit

10:00 **"Some Observations on Pellagra"**
JOHN H. MUSSER, M.D., New Orleans, La.

10:30 **"Medical Management of Chronic Ulcerative Colitis"**
THOMAS MACKIE, M.D., New York City

11:00 **"Clinical Pathological Conference, Conducted by**
OSBORNE BRINES, M.D., and PAUL NOTH, M. D., Detroit
DISCUSSANTS: EDWARD SPALDING, M.D., Detroit
CYRUS C. STURGIS, M.D., Ann Arbor

11:45 **Election of Officers**

SECTION ON SURGERY

Chairman: IRA G. DOWNER, M.D., Detroit
Secretary: O. H. GILLETT, M.D., Grand Rapids

Grand Ballroom, Book-Cadillac Hotel

SYMPOSIUM ON PRE-OPERATIVE AND POST-OPERATIVE TREATMENT IN SURGERY

A. M.

9:00 **"Post-operative Pulmonary Complications"**
CAMERON HAIGHT, M.D., Ann Arbor

9:30 **"Nutrition in Surgery"**
CHARLES S. KENNEDY, M.D., Detroit

10:00 **"Pre-operative Preparation of the Patient"**
AMBROSE L. LOCKWOOD, M.D., Toronto, Canada

10:30 **"Surgical and Operating Room Technique"**
J. DERYL HART, M.D., Durham, North Carolina

11:00 **"Pre-operative Treatment and Post-operative Complications of Urological Surgery"**
HUGH H. YOUNG, M.D., Baltimore, Maryland

11:30 "Vascular Post-operative Complications of General Surgery"

ALTON OCHSNER, M.D., New Orleans, Louisiana

12:00 Election of Officers

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman: HARRY A. PEARSE, M.D., Detroit
Secretary: CLAIR E. FOLSOME, M.D., Ann Arbor

Book Casino, Book-Cadillac Hotel

A. M.

9:30 to 9:50 "Pregnancy Complicated by Uterine Fibroids"

ROBERT WILLSON, M.D., Ann Arbor

9:50 to 10:10 "Postpartum Sterilization"

WILLIAM BIRCH, M.D., Sault Ste. Marie

10:10 to 10:30 "Benign Tumors of the Ovary"

HOWARD C. WALSER, M.D., Detroit

10:30 to 11:00 "The Three Newest Hormones in Gynecology"

JACOB P. GREENHILL, M.D., Chicago

11:00 to 11:30 "Clinical Experiences in Premarital Consultation in Private Practice"

RICHARD N. PIERSON, M.D., New York City

11:30 Election of Officers
Luncheon

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman: O. B. MCGILLICUDDY, M.D., Lansing
Secretary: ROBERT G. LAIRD, M.D., Grand Rapids

OPHTHALMOLOGY

Founders Room, Book-Cadillac Hotel

A. M.

9:30 "The Use of Suction in Cataract Surgery"

E. L. COOPER, M.D., Detroit

10:00 "Sympathetic Ophthalmia"

DON MARSHALL, M.D., Kalamazoo

10:30 "The Diagnosis and Treatment of Inclusion Conjunctivitis in the New Born"

A. E. BRALEY, M.D., Detroit

11:00 "Nummular Keratitis, Report of a Case"

WM. S. CONWAY, M.D., Petoskey

11:30 "Retinal Changes Associated with Arterial Hypertension"

WALTER IVAN LILLIE, M.D., Philadelphia

OTOLARYNGOLOGY

Parlor G-H-I, Book-Cadillac Hotel

A. M.

9:30 "Indications for Simple and Radical Mastoidectomy"

HANS BRUNNER, M.D., Chicago



H. BRUNNER

Docent at the University of Vienna; formerly Chief of the Otolaryngological Department at the Allgemeine Poliklinik in Vienna; formerly President of the Austrian Otological Society; Associate Professor of Otolaryngology, University of Illinois, College of Medicine; Honorary member of the American Academy of Ophthalmology and Otolaryngology; Member of the Collegium Otolaryngologicum.

The simple mastoidectomy is indicated (a) if there is a completely developed acute or subacute mastoiditis, (b) if there are signs of an intracranial complication even in the absence of a completely developed mastoiditis. The symptoms of the acute or subacute mastoiditis which is also called "Coalescent mastoiditis," and the symptoms of a beginning complication in an incompletely or hemorrhagic mastoiditis are discussed.

The radical operation has a relative and an absolute indication. The relative indication is found in a chronic otitis affecting the bony walls of the middle ear and treated for a certain period of time without success. The absolute indication is found (a) when there are symptoms of the suppuration having passed the surgical margins of the middle ear, and (b) when symptoms of an intracranial complication are present.

11:00 "Diagnosis and Treatment of Esophageal Lesions"

WADSWORTH WARREN, M.D., Detroit

11:30 "Carcinoma of the Larynx"

ARTHUR HAMMOND, M.D., Detroit

12:00 noon "Physiology of the Nose"

DEWEY R. HEETDERKS, M.D., Grand Rapids

P. M.

12:30 Election of Officers of Section on Ophthalmology and Otolaryngology
Luncheon

SECTION ON PEDIATRICS

Chairman: Ed. A. Wishropp, M.D., Detroit
Secretary: Harry A. Towsley, M.D., Ann Arbor

Washington Room, Book-Cadillac Hotel

A. M.

9:30 **"A Kodachrome Demonstration of Some Allergic Dermatosis"**
Samuel Levin, M.D., Detroit

10:00 **"Nutritional and Metabolic Problems in the Adolescent Girl"**
Joseph Johnston, M.D., Detroit

10:30 **"Sulphathiazol Series"**
Benjamin Carey, M.D., Detroit

11:00 **"Prophylaxis to Measles"**
Joseph Stokes, Jr., M.D., Philadelphia

11:30 **"Prevention of Spread of Air-borne Infections"**
Charles F. McKhann, M.D., Boston

12:00 **Business Meeting—Election of Officers**

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman: Frank R. Menagh, M.D., Detroit
Secretary: Eugene A. Hand, M.D., Saginaw

Harper Hospital, Detroit

A. M.

9:30 to 11:00 **Clinic at Harper Hospital**

11:00 to 12:00 **Discussion of Cases**

12:30 **Election of Officers—Luncheon, Harper Hospital Cafeteria**

SECTION ON RADIOLOGY, PATHOLOGY AND ANESTHESIA

Chairman: C. K. Hasley, M.D. (Rad.), Detroit
Secretary: A. V. Wenger, M.D. (Anes), Grand Rapids
F. W. Hartman, M.D. (Path.), Detroit

Room 1406-7, Book-Cadillac Hotel

"SYMPOSIUM ON ANOXIA"

A. M.

9:00 **Chairman's Address**
Clyde K. Hasley, M.D., Detroit

9:15 **"Anoxia from the Anesthetist's Point of View"**
Ralph M. Waters, M.D., Madison, Wisconsin

9:45 **"A Study of Alpha-Lobeline, Metrazol and Coramine in Experimental Anoxia"**

Nicholson J. Eastman, M.D., Baltimore, Maryland



N. J. Eastman

A.B., Yale University, 1916; M.D., Indiana University School of Medicine, 1921. Instructor and Associate in Obstetrics, Johns Hopkins University, 1928-1933; Professor of Obstetrics and Gynecology, Peiping Union Medical College, 1933-35; Professor of Obstetrics, and Obstetrician-in-Chief, Johns Hopkins University and Hospital, respectively, since 1935. Member of American Gynecological Society; American Association of Obstetricians, Gynecologists, and Abdominal Surgeons; American Medical Association; Society of Experimental Biology and Medicine Sigma Xi.

Experimental asphysia in dogs produced by the administration of 100 per cent helium reduplicates in its entirety the clinical syndrome of asphyxia neonatorum, that is, apnea, bradycardia, falling blood pressure, muscular flaccidity and blood oxygen levels between 2 and 4 volumes per cent. In the presence of such experimental asphyxia, alpha-lobeline, metrazol and coramine, drugs widely recommended for the treatment of asphyxia neonatorum, do not initiate respiration; on the other hand, insufflation with 100 per cent oxygen leads to restitution of spontaneous respiration within a few seconds. The reasons for the failure of these drugs in profound asphyxia are discussed.

10:30 **"Anoxia from the Pediatrician's Point of View"**
W. C. C. Cole, M.D., Detroit

10:50 **"Anoxia from the Neuro-Surgeon's Point of View"**
Frederick Schreiber, M.D., Detroit

11:10 **"Anoxia from the Pathologist's Point of View"**
Frank W. Hartman, M.D., Detroit

11:30 **Discussion, to be opened by**
A. V. Wenger, M.D., Grand Rapids
M. A. Darling, M.D., Detroit
Frank Murphy, M.D., Detroit

12:00 **Election of Officers**

Honorary, Retired, and Emeritus Membership in the Michigan State Medical Society: Please certify to the Executive Office, 2020 Olds Tower, Lansing, at least thirty days in advance of the Annual Meeting (no later than August 26), the names of any of your members for whom Special Memberships in the State Society will be sought next September. The membership records of physicians recommended by county medical societies for special memberships must be checked before final submission to the House of Delegates.

PROGRAM of GENERAL ASSEMBLIES

THURSDAY AFTERNOON
September 26, 1940

Fourth General Assembly

Grand Ballroom, Book-Cadillac Hotel

O. O. Beck, M.D., Presiding
L. Fernald Foster, M.D., and Ed. A. Wishropp, M.D., Secretaries

P. M.

1:30 "Fundal Changes Associated with General Diseases"

Walter Ivan Lillie, M.D., Philadelphia, Pa.



W. I. Lillie

Professor and Head of Department of Ophthalmology, Temple University School of Medicine; Chief Ophthalmologist, Temple University Hospital, Philadelphia; Consulting Ophthalmologist: Shriners Hospital for Crippled Children, Philadelphia, Norristown State Hospital, Norristown, Pa., Eagleville Sanatorium, Eagleville, Pa. Member: American Medical Association, American Ophthalmological Society, American Academy of Ophthalmology and Otolaryngology, College of Physicians of Philadelphia, American College of Surgeons.

2:00 "Industrial Aspects of Dermatitis and Eczema"

John G. Downing, M.D., Boston, Mass.



J. G. Downing

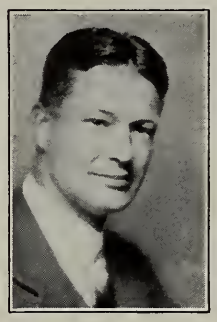
M.D. Harvard Medical School, 1915. Assistant Professor of Dermatology, Tufts College Medical School. Dermatologist at St. Elizabeth's Hospital, Boston City Hospital, Beth Israel Hospital, U. S. Public Health Service. Chairman, Section of Dermatology and Syphilology, A.M.A., 1939-40. Member, Board of Directors, American Academy of Dermatology and Syphilology. Member, American Dermatological Association, New England Dermatological Society, Society for Investigative Dermatology, Industrial Surgeons.

The physical and chemical causes in industry that are capable of producing cutaneous eruptions are classified. The method of diagnosis, including the various cutaneous tests, are discussed and evaluated. The rôle of secondary infection is analyzed, based on a study of three hundred cases. Prognosis, treatment, and prevention are discussed in detail. A few legal aspects are included.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "The Medical and Surgical Significance of Avitaminosis"

Thomas T. Mackie, M.D., F.A.C.P., New York, N. Y.



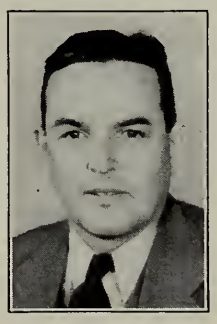
T. T. Mackie

A.B., Harvard; M.D., Columbia; Certificate London School of Hygiene and Tropical Medicine; D. T. M. & H. (England); Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University; Associate, Department of Public Health and Preventive Medicine, Cornell University Medical College; Attending Physician, Roosevelt Hospital; Consulting Physician, New York Infirmary for Women and Children; Consulting Physician in Tropical Medicine, Beekman Street Hospital. Societies: A.M.A. American College of Physicians, American Clinical and Climatological Association, Secretary American Gastro-Enterological Association, Royal Society of Hygiene and Tropical Medicine, President-elect American Society of Tropical Medicine.

Research in vitamin physiology has demonstrated that avitaminosis occurs in two stages. The first entails disturbance of intracellular function and consequent disturbance of normal physiology. This may be accompanied by symptoms. The second and later stage entails disturbance of structure accompanied by symptoms and by physical signs. First degree avitaminosis is common in the medical and surgical wards of a general hospital. It may result from the disease process itself, insufficiently protective therapeutic diets, and nutritional imbalance produced by conventional postoperative regimes. Avitaminosis may contribute to the disease process, and may condition the appearance of serious complications in both medical and surgical patients.

3:30 "Studies Concerning the Virus of Measles Grown in the Developing Chick Embryo"

Joseph Stokes, Jr., M.D., Philadelphia, Pa.



Joseph Stokes

William H. Bennett Professor of Pediatrics, University of Pennsylvania. Physician-in-Chief, The Children's Hospital, Philadelphia. Member: A.M.A., Association of American Physicians; American Academy of Pediatrics.

The virus of measles can be carried on the chorioallantoic membrane of the developing chick embryo.

Such passage virus produced a mild disease in monkeys indistinguishable, except perhaps in point of severity, from measles produced in this animal with fresh virus from human cases.

Such passage virus produced modified measles of a very mild type in some children when administered by the intranasal or the subcutaneous routes; in other children mild respiratory symptoms or no symptoms were produced.

Re-inoculation of such children two to eight months later with nasal washings or blood from cases of measles in the prodromal stages of the disease or during the early stages of the rash in these cases, produced no symptoms or signs although monkeys, and even in one test, children used to control the activity of the inoculum succumbed with typical measles. In two cases in which re-inoculation with human blood was carried out five weeks after the inoculation of egg passage virus, one child exhibited mild measles; the other remained free of all symptoms but exhibited fever and a faint rash on the trunk, both of which would have been missed unless specifically looked for.

In corroboration of the older reports of Hektoen, et al, measles can be produced in unvaccinated children by the subcutaneous or intramuscular inoculation of blood from human cases, which blood contains no demonstrable bacteria. The disease produced in this way was not modified in our hands.

4:00 "Complications of Appendicitis"

ALTON OCHSNER, M.D., New Orleans, La.



ALTON OCHSNER

B.A., University of South Dakota, 1918; M.D., Washington University, St. Louis, Mo., 1920; spent 3½ years studying in Europe (Switzerland and Germany). 1927 to present time, Professor of Surgery and Head of Department of Surgery, Tulane University School of Medicine, New Orleans; Senior Visiting Surgeon and Director of Tulane Surgical Unit, Charity Hospital, New Orleans; Consulting Surgeon, Illinois Central Hospital, New Orleans; Consultant in Thoracic Surgery, Eye, Ear, Nose and Throat Hospital, New Orleans. Member numerous medical and surgical societies. Honorary member Alpha Omega Alpha; Sigma Xi; Omicron Delta Kappa; Alpha Zeta Circle (National Leadership Society); D.Sc. (Hon.) University of South Dakota, 1936; Co-editor of Surgery, Secretary Southern Surgical Association; Regent American College of Surgeons; Member Editorial Board of International Surgical Digest; Archives of Surgery; Journal of Digestive Diseases and Nutrition; Surgery, Gynecology and Obstetrics. Author of many outstanding works.

Unfortunately, the mortality rate from appendicitis is still alarmingly high and is the result of extension of the infection beyond the confines of the appendix causing complications. Therefore, the consideration of the treatment of complications of appendicitis is of value. The most frequently encountered complication of acute appendicitis is peritonitis, which may be either localized or diffuse. The treatment consists of the prevention of ileus, the combating of infection by chemotherapeutic agents, and the prevention of toxemia. In addition to the peritonitis and its associated ileus, other complications are residual infections in the peritoneal cavity which are likely to be overlooked. These occur most frequently in the cul-de-sac of Douglas, the right iliac fossa, the subphrenic areas either above or below the liver, and on the left side of the abdomen. Each of these complications is discussed as regards the diagnosis and therapy. A final complication is portal thrombophlebitis which offers a very poor prognosis.

4:30 End of Fourth General Assembly

THE EXHIBITORS WILL REMAIN IN THEIR BOOTHS UNTIL 6:00 P. M. FOR YOUR CONVENIENCE

THURSDAY EVENING
September 26, 1940

Fifth General Assembly

(for M.S.M.S. Members Only)

Grand Ballroom, Book-Cadillac Hotel

Council Chairman: HENRY R. CARSTENS, M.D., Presiding

L. FERNALD FOSTER, M.D., Secretary

SMOKER

Admission by Card Only

P. M.

9:00

1. **The Wayne County Medical Society String Quintette**
2. **Leger de Main by Bernard W. McDougall, M.D., Detroit**
3. **The W.C.M.S. Glee Club**
4. **"Before or After"—a blackout by the W.C.M.S. Players**
5. **"The Gastro-Intestinal Tract" by Judge Robert Toms, Detroit**
6. **The W.C.M.S. String Quintette**
7. **"Instead Of"—a five-act play (one minute per act!) by the W.C.M.S. Players**
8. **The W.C.M.S. Glee Club**

10:00 DUNKING THE PRETZELS—a two-handed Skit by the entire company

Host—The Michigan State Medical Society

End of the Fifth General Assembly

FRIDAY MORNING
September 27, 1940

Sixth General Assembly

Grand Ballroom, Book-Cadillac Hotel

PREVENTIVE MEDICINE ASSEMBLY

A. H. MILLER, M.D., Presiding

L. FERNALD FOSTER, M.D., and FRANK R. MENAGH, M.D., Secretaries

A. M.

9:30 "Responsibility of the Medical Profession in Industrial Hygiene"

PAUL A. NEAL, M.D., Washington, D. C.



P. A. NEAL

M.D., Vanderbilt University, 1927; Commissioned as Assistant Surgeon, Regular Corps, U. S. Public Health Service, 1928; 1929-34, on duty in Europe, attached to Consular Office on Foreign Quarantine detail; 1934 to present time, Division of Industrial Hygiene, National Institute of Health; at present Action Chief, Division of Industrial Hygiene. Member of A.M.A., American Public Health Association, American Association for the Advancement of Science, American Association of Industrial Physicians and Surgeons, and Association of Military Surgeons.

Due to the fact that only about 15 per cent of the workers in this country have full-time medical services provided them, the responsibility for furnishing such services is not limited to the so-called industrial physician, but is shared to a very large extent with the general practitioner. In order to fulfill his responsibility successfully, the physician must first gain a knowledge of the scope of industrial hygiene, its objectives and the functions essential in achieving these objectives. These are discussed in the paper, with special emphasis placed on the importance of industrial hygiene in conserving manpower in industry. Under normal conditions the maintenance of the health of workers is an important problem and with the increase in industrial activities envisaged in our national defense program, this problem will be magnified manifold. The opportunities of the medical profession in the field of industrial medicine are also discussed.

ACKNOWLEDGMENT: The Michigan Department of Health is sincerely thanked for its sponsorship of this lecture.

10:00 "The Primary Tuberculous Infection in Adults"

HENRY C. SWEANY, M.D., Chicago, Ill.



H. C. SWEANY

M.D., Rush Medical College, 1921. Immediately appointed to the Directorship of the Municipal Tuberculosis Sanitarium Laboratory, which position he now holds. During this time the staff was built up from four to thirty-two members (not including twenty-five volunteers). In 1929 he was U. S. delegate to the Pan-American Congress at Rio and has been appointed again this year for the same Congress at Cordova, Argentina. In 1936 he served as U. S. Delegate to the International Tuberculosis Union at Lisbon, Portugal. Has been on the National Tuberculosis Association Board many times, and in 1936 was Vice President of the National Tuberculosis Association. Member of twelve medical and scientific societies in the U. S., including the American College of Physicians, and the American Medical Association. Has certificates from the American Board of Internal Medicine and the American Board of Pathology. His publications include works in pathology and bacteriology of tuberculosis, treatment of tuberculosis, non-tuberculous lung diseases, silicosis, and blood chemistry.

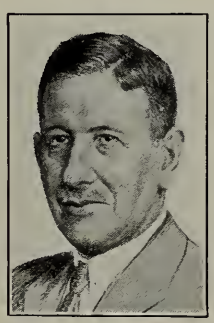
The "primary tuberculous complex," as designated by Ranke, but described earlier in human beings by Parrot, Ghon and others, is generally understood as a local lesion or scar which is in direct relation to similar lesions along the course of the lymphatics towards the blood stream. This early lymphatic progress of the disease is so constant in experimental animals that it has been called the "Cornet Cohnheim law of similar adenopathies." It has been also considered the same for first infections in human beings. So far as most childhood infections are concerned this is true, but variations of dosage and age of the individual may cause such an alteration of the picture that it is not always recognized by pathologists and scarcely at all by roentgenologists and clinicians. The underlying causes, the means of identification, and importance of such "atypcial" primary infections, especially as found in adults, will be presented.

ACKNOWLEDGMENT: The Michigan Tuberculosis Association is sincerely thanked for its sponsorship of this lecture.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Hospital Organization and Staff-work as Factors in Maternal Health"

SAMUEL A. COSGROVE, M.D., Jersey City, N. J.



S. A. COSGROVE

M.D., Cornell University Medical College; 1907, Clinical Professor of Obstetrics, Faculty of Medicine, Columbia University; Medical Director and Attending Obstetrician Margaret Hague Maternity Hospital; Attending Obstetrician Jersey City Medical Center; Consulting Obstetrician Christ Hospital, Jersey City; Bayonne Hospital, Bayonne; North Hudson Hospital, Weehawken; Holy Name Hospital, Teaneck; Mountainside Hospital, Montclair;. Monmouth Memorial Hospital, Long Branch; Diplomate American Board of Obstetrics and Gynecology; Fellow, American College of Surgeons; American Association of Obstetrics, Gynecology and Abdominal Surgery; American Gynecological Society; New York Obstetrical Society; New York Academy of Medicine, et cetera.

"Maternal Health" has very broad implications contributing to which are a host of sociological, economic, hygienic and medical factors. To most physicians the last is of most immediate interest. This factor alone is multifold; that which touches me, and I hope most of you, most closely, is that phase of it pertaining to the hospital and its staff. Administration, nursing service and medical staff must sympathetically cooperate for best results. Such coöperation must embrace organization, technics, control of practice and education of doctors, nurses and patients. Each of these details is outlined in a practical manner.

ACKNOWLEDGMENT: The W. K. Kellogg Foundation is sincerely thanked for its sponsorship of this lecture.

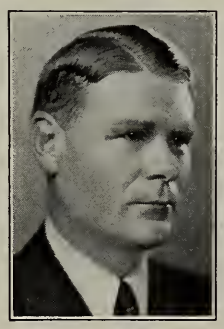
11:30 "Psychochomatic Aspects of Illness"

H. FLANDERS DUNBAR, M.D., New York City

ACKNOWLEDGMENT: The McGregor Health Foundation is sincerely thanked for its sponsorship of this lecture.

12:00 "Observations on Deficiencies of the Vitamin B Group"

L. EMMETT HOLT, JR., M.D., Baltimore, Maryland



L. E. HOLT

M.D. Johns Hopkins, 1920. Following interneship in internal medicine at Presbyterian Hospital, New York, and in pediatrics at Babies Hospital, New York, has been a member of full-time staff of the Department of Pediatrics at Johns Hopkins. He has done much investigation of disease, largely along biochemical lines. Has dealt with rickets, tetany, calcium metabolism, fat metabolism and B group of vitamins.

The paper will discuss what is known of the function of the B vitamins, particularly the three factors, thiamin, riboflavin and nicotinic acid. Attention will be called to recent additions to the clinical picture of these deficiencies to newer laboratory procedures for detecting deficiencies and to clinical interrelationships between these factors.

ACKNOWLEDGMENT: The Children's Fund of Michigan is sincerely thanked for its sponsorship of this lecture.

P. M.

12:30 End of Sixth General Assembly Luncheon

DON'T FAIL TO VISIT THE $50,000 EXHIBIT ARRANGED FOR YOU

FRIDAY AFTERNOON
September 27, 1940

Seventh General Assembly
Grand Ballroom, Book-Cadillac Hotel

J. Earl McIntyre, M.D., Presiding

L. Fernald Foster, M.D., and O. H. Gillett, M.D., Secretaries

P. M.

1:30 "Surgical Dyspepsias"

Ambrose L. Lockwood, M.D., Toronto, Ontario



A. L. Lockwood

M.D., McGill University, 1910. Spent several years in postgraduate work in New York, London and Germany. Caught in Berlin at outbreak of the Great War—escaped and joined up with the Royal Army Medical Corps and served as a surgical specialist with them five years. Awarded the D.S.O., M.C., the Mons Star, and was three times mentioned in dispatches. After the war he returned to Mayo Clinic, and was on the Surgical Staff there till the summer of 1922, when he established his own Clinic in Toronto. Has published numerous treatises in the field of Thoracic and General Surgery, and has recently published an exhaustive summary of his experiences in War Surgery through the British Medical Journal. Member Canadian Medical Association, Ontario Medical Association, American Association for the Study of Goiter, and the Society of Military Surgeons.

Thorough routine examination of all patients from head to foot regardless of their complaints and periodic health examinations of apparently well people have greatly extended the field of the "Dyspepsias."

Greater accuracy in the diagnosis of diseases of the gastrointestinal tract has revealed serious conditions overlooked hitherto, and has materially increased the problems that perplex the profession in determining the cause, course, and measures for relief of symptoms vaguely referred to as the "dyspepsias." In addition, there has been for fifteen years a pleasing and ever decreasing mortality in dealing surgically with these so-called "surgical dyspepsias."

2:00 "Broncho-Esophagology in Relation to General Practice"

Chevalier L. Jackson, M.D., Philadelphia, Pa.



C. L. Jackson

M.D., University of Pennsylvania, 1926; M.Sc. (Med.) Graduate School of Medicine, University of Pennsylvania, 1930. Professor of Broncho-Esophagology, Temple University School of Medicine and Hospital; Bronchoscopist to Lankenau Hospital and Mary J. Drexel Home, Chestnut Hill Hospital, Eagleville Sanatorium and Hospital; Consultant in Bronchoscopy, Montgomery Hospital, Norristown, Pa. Fellow American Academy of Ophthalmology and Otolaryngology; American Laryngological Association; American Broncho-Esophagological Association; American Association for Thoracic Surgery; American College of Surgeons; American Laryngological, Rhinological and Otological Society, and many medical societies in America and abroad.

Too many family physicians still look upon bronchoscopy and esophagoscopy as stunts, curiosities of medicine. As a matter of fact, these procedures as well as the new branch of medicine that they have been largely responsible for developing — broncho-esophagology—are making very significant contributions which should be part of the common knowledge of the well informed practitioner. For example, since we have learned something about bronchology, we know that many things may cause a wheeze besides asthma—"all is not asthma that wheezes"—a wheeze may mean "anything from peanuts to cancer." It is also true that, since we have learned something about esophagology, we are less likely to make a diagnosis of hysteria when a patient develops dysphagia from an esophageal cancer. Practical points in connection with the diagnosis and treatment of thoracic disease have resulted from the development of broncho-esophagology, which comprises the sum total of our knowledge of the bronchi and esophagus—the anatomy, physiology, pathology, clinical diagnosis and treatment of bronchial and esophageal disease.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Tumors of the Scalp and Skull and Their Significance as Revealed by Roentgenograms"

John D. Camp, M.D., Rochester, Minn.



J. D. Camp

M.D., Boston University, 1922; Fellow in Roentgenology, Mayo Foundation, 1922-24; Assistant Roentgenologist, Massachusetts General Hospital, 1924-27; Visiting Roentgenologist Massachusetts General Hospital, 1927-28; Assistant in Roentgenology, Harvard Medical School, 1924-28; Associate Roentgenologist, Mayo Clinic at present. Associate Professor of Radiology, Mayo Foundation, University of Minnesota. Lieut. Commander U. S. Naval Reserve; Fellow American College of Radiology; Diplomate American Board of Radiology; Member American Medical Association, The Radiological Society of North America (Pres. 1937), the American Roentgen Ray Society, Sigma Xi.

Tumors of the scalp may be grouped as benign and malignant and further divided into those which are limited to the scalp itself and those which are manifestations of underlying lesions in the skull. The latter group is particularly important because the tumor masses are often the result of intracranial disease or malformations, constitutional disorders or disseminated skeletal lesions. Experience indicates that without roentgenograms the differentiation of tumors involving the scalp is not to be depended on and the removal of tumors of the scalp without a roentgenologic check on the extent of the lesion may be hazardous. The importance of the x-ray examination will be shown by means of representative cases and the roentgenologic features of the lesions involved will be discussed in detail.

3:30 "The Present Status of Endocrinology in Gynecology"

Jacob P. Greenhill, M.D., Chicago, Ill.



J. P. Greenhill

M.D., Johns Hopkins Medical School, 1919; Professor and Vice Chairman, Department of Obstetrics and Gynecology, Loyola University Medical School; Professor Gynecology, Cook County Graduate School of Medicine; Attending Gynecologist Cook County Hospital; Member American Association Obstetricians, Gynecologists and Abdominal Surgeons, Chicago Gynecological Society, Central Association of Obstetricians and Gynecologists, Johns Hopkins Surgical Society, American Association of Anatomists, and others. Author of "Office Gynecology," Year Book Publishers, Chicago, 1939; Editor of "Gynecology," Year Book of Obstetrics and Gynecology.

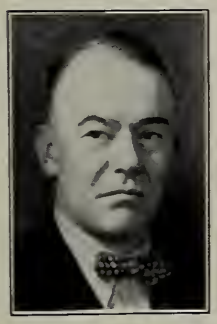
The clinical application of endocrine therapy in gynecology is confusing. The chief reason for this is

excessive enthusiasm based upon laboratory experiments and insufficient human controls. The indications for endocrine therapy in gynecology are limited in number. The pituitary hormones have a most restricted field of activity. The anterior pituitary-like hormones have a beneficial effect in some cases of functional uterine bleeding. The gonadotropic hormones found in pregnant mare serum will produce ovulation in some cases. Estrogen is of use for disturbances of the menopause, gonorrheal vulvo-vaginitis and some cases of senile vaginitis and pruritus vulvæ. Progesterone is helpful in some cases of threatened abortion, habitual abortion, dysmenorrhea and premenstrual tension. The male hormone testosterone proprionate is of value in some cases of excessive uterine bleeding, dysmenorrhea, premenstrual painful breasts and premenstrual tension. Thyroid therapy is helpful in many gynecological disturbances.

In order to use hormone therapy intelligently it is important to understand the physiology of the preparations used.

4:00 "The Changing Picture of Diabetes"

REGINALD FITZ, M.D., Boston, Mass.



REG. FITZ

Lecturer on the History of Medicine, Harvard Medical School; Member Council on Medical Education and Hospitals, American Medical Association; Member Board of Regents, American College of Physicians; Member American Board of Internal Medicine; Consulting Physician, Peter Bent Brigham Hospital, Boston.

The picture of diabetes has changed remarkably in the last thirty years. Because of insulin diabetic patients live to be observed for long periods of time. The complications of diabetes have become the important feature of the disease rather than the disease itself. By recognizing complications early—surgical complications, vascular complications or the early stages of diseases like cancer which may develop in the diabetic individual entirely independent of diabetes—steps may be taken to practice intelligent preventive medicine and thus to afford the diabetic as good if not a better life expectancy than can be afforded his non-diabetic friend. These facts are well brought out by comparing diabetes as Naunyn saw it in 1906 with diabetes as any modern doctor sees it today.

4:30 End of Sixth General Assembly

END OF THE CONVENTION

PAPERS WILL BEGIN AND END ON TIME!

Believing there is nothing which makes a scientific meeting more attractive than by-the-clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time, and to close exactly on time, in accordance with the schedule in the program. All who attend the meeting, therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

TECHNICAL EXHIBITS

Abbott Laboratories **Space No. 32**
North Chicago, Illinois

Abbott Laboratories, North Chicago, Illinois, cordially invite all members of the profession and associates to call at their exhibit in space No. 32 to become acquainted with their latest research products, including anesthetics, antiseptics, hypnotics and chemotherapeutic specialties. Professional representatives will be on hand to answer all queries. A hearty welcome awaits you.

A. S. Aloe Company **Space No. 80**
St. Louis, Missouri

The A. S. Aloe Company will exhibit an unsually complete showing of general equipment for doctors and hospitals, featuring an interesting diorama of Steeline furniture for the treatment room. Interesting specialties will be shown, including the Washington University Portable Obstetric Table. Aloe representatives, E. E. Davis and M. R. Pregerson, will be in charge of the display.

The Arlington Chemical Company **Space No. 53**
Yonkers, New York

The Arlington Chemical Company invites you to inspect their line of Proteins and Pollens for the diagnosis and treatment of allergic conditions; also their Pharmaceutical Products, including Aminoids —a combination of amino acids of therapeutic value in malnutrition, underweight and loss of appetite. Dr. Frazer and Dr. Kitzman will be happy to discuss allergy problems.

The Baker Laboratories **Space No. 58**
Cleveland, Ohio

Baker's complete line of infant foods are on display. Baker's **Modified Milk** (powder and liquid) is a completely prepared milk in which the composition as well as the proportions of the protein, fat, carbohydrate, vitamin and mineral content have been so altered and adjusted as to closely simulate breast milk. **Melcose** is also a completely prepared milk (liquid only) and very economical. **Melodex** (maltose and dextrin) is made especially for modifying fresh or evaporated milk formulas.

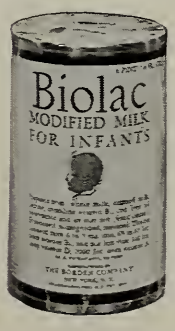
Bard-Parker Company **Space No. 66**
Danbury, Connecticut

Bard-Parker will exhibit the following products: Rib-Back surgical blades; Renewable Edge Scissors; Hematological Case for obtaining blood samples at the bedside; Ortholator for obtaining accurate dental radiographs; Formaldehyde Germicide and Instrument Containers for the rust-proof sterilization of surgical instruments.

Barry Allergy Laboratory, Inc. **Space No. 35**
Detroit, Michigan

Barry Allergy Laboratory, Inc., will display diagnostic and individualized services for the various specialties bordering or connecting with allergy, as well as its materials, which can be easily used by the general practitioner. Individualized treatment based on the patient's individual skin test reactions and history will be stressed.

The Borden Company **Space No. 61**
New York, New York



Full information on **Biolac,** the new **liquid** modified milk for infants, will be available at the Borden Booth. Also exhibited will be other Borden products for infant feeding, notably Klim, Dryco, Special Dryco, Beta Lactose, Merrell-Soule Products and Borden's Irradiated Evaporated Milks.

The Burrows Company **Space No. 51**
Chicago, Illinois

The Burrows Company will feature the new and amazing "Major" Plaster Bandage, the cast material that is removed without the aid of any instruments. Other features will include: The Duod-O-Vac (Au-

tomatic Siphon Suction Apparatus)—The Superior Electric Breast Pump—and the Superior Suction and Ether Unit.

Cameron Surgical Specialty Company **Space No. 40**
Chicago, Illinois

See the new Cameron Color-Flash Clinical Camera, the Projectoray and the latest Cameron-Lempert Headlite. Latest developments in electrically lighted Diagnostic and Operating instruments for all parts of the body will also be shown. Of special interest will be the new inexpensive office model Radio Knife and other electro-surgical units.

S. H. Camp & Company **Space No. 17**
Jackson, Michigan

If you are interested in scientific supports, this is an invitation to investigate Camp Supports for prenatal, postnatal, visceroptosis, hernia and orthopedic conditions. There are new additional useful ideas in designs that will interest you.

The Coca-Cola Company **Space No. 74**
Atlanta, Georgia

Coca-Cola will be served to the physicians with the compliments of the Coca-Cola Company.

Cottrell-Clarke, Inc. **Space No. 15**
Detroit, Michigan

Cottrell-Clarke, Inc., Detroit, or the Physicians' Stationery Company (their former corporate name) as they were long familiarly known to our own Michigan medical men, will show many new, interesting developments in case records and case record keeping at this year's M.S.M.S. exhibit.

R. B. Davis Company **Space No. 75**
Hoboken, New Jersey



You are invited to enjoy a drink of delicious Cocomalt at the R. B. Davis Booth. Cocamalt is refreshing, nourishing and of the highest quality. It has a rich content of Vitamins A, B_1 and D, Calcium and Phosphorus to aid in the development of strong bones and sound teeth; Iron for blood; Protein for strength and muscle; Carbohydrate for energy.

Detroit X-Ray Sales Company **Spaces No. 69-70**
Detroit, Michigan

The Detroit X-Ray Sales Company will have on display a new design of automatically controlled X-Ray equipment for the general practitioner, which will be of interest. The medical profession is cordially invited to witness demonstrations of this latest proof that **Mattern,** as usual, is again a step ahead in the x-ray field.

Duke Laboratories, Inc. **Space No. 24**
Stamford, Connecticut

The Duke Laboratories, Inc., will demonstrate the original, American-made, stretchable, adhesive-surfaced bandage, Elastoplast, approved by the American College of Surgeons. Elastoplast is used whenever compression and support are required, and is rapidly taking the place of the Unna Boot in the treatment of varicose ulcers. Samples of Mediplast, the Elastoplast speed compress, and the Elastoplast Occlusive Dressings, used in the treatment of minor injuries, may be had. Samples of Nivea and Basis Soap—the prescriber's cosmetics, may also be had.

H. G. Fischer & Company **Space No. 7**
Chicago, Illinois



H. G. Fischer & Co. 1940 models of x-ray and short wave apparatus are so distinctive, both in improved performance and in various instances greatly lowered in price, that every physician should consider inspection a convention obligation. The complete H. G. Fischer & Co. line includes shockproof x-ray apparatus, short wave units, combination cabinets, galvanic and wave generators, ultra violet and infra-red lamps and many other units, accessories and supplies. Physicians attending the convention are invited to ask for demonstrations of apparatus in which they are interested and to consult with Fischer representative regarding technics made available by Fischer apparatus.

General Electric X-Ray Corporation **Space No. 54**
Detroit, Michigan



We cordially invite the physicians and their wives who attend this meeting to make use of the lounge facilities provided at our booth for their comfort. We particularly look forward to a visit from our customers and invite all physicians who may have technical problems, to discuss them with our staff in attendance. For those who are interested, we would welcome the opportunity to tell you of our contribution in new and improved physiotherapy and x-ray equipment since the 1939 State Meeting.

Gerber Products Company **Space No. 41**
Fremont, Michigan



Ten new foods which have just been added to the Gerber Foods will be on display in the Gerber Booth. Copies of both the professional literature and the booklets for mothers are there for your examination and will be sent to you on request.

Hack Shoe Company **Space No. 26**
Detroit, Michigan

Hack's Prescription Shoe Service will again present its annual display of correct shoes for men, women and children. Designed for style but built for comfort, Hack Shoes are worn by an increasingly large number of doctors, their wives and families. Located on the 5th floor of the Stroh Building at 28 West Adams Avenue (on Grand Circus Park) in Detroit, the Hack Shoe Company is conveniently located for those attending the convention.

Hanovia Chemical and Mfg. Company **Space No. 33**
Newark, New Jersey

The very latest in ultra-violet equipment will be demonstrated, including the outstanding uses of ultra-violet radiation in the fields of science, medicine and public health. Don't fail to see our new line of self-lighting ultra-violet high-pressure mercury arc lamps, Short and Ultra Short wave apparatus, Sollux Radiant Heat Lamps and our latest development, quartz ultra-violet lamps for air sanitation.

The J. F. Hartz Co. **Spaces No. 55-56-57**
Detroit, Michigan

Greetings to our medical friends! For over forty years it has been the privilege of the J. F. Hartz Company to serve you and your patient.
May we ask your attendance at our display, which is occupying enlarged space during this convention? We manufacture a fine line of pharmaceuticals and ampules under strict laboratory control, as is evidenced by no citations from either the State or Federal Food and Drug Departments. We also direct your attention to the Hartz-o-therm, a low-price, efficient short wave which has met with the approval of the profession.

H. J. Heinz Company **Space No. 11**
Pittsburgh, Pennsylvania

Physicians interested in prescribing soft diets will be interested in the new Heinz exhibit where Strained and Junior Foods are attractively displayed. Miss Elizabeth Elder, Mr. L. A. Davis and Mr. E. J. Cooley are in attendance and will be happy to supply information on these foods.

Holland-Rantos Company **Space No. 81**
New York, New York



Modern contraceptive technics will be demonstrated at the booth of the Holland-Rantos Company based on the use of medically approved contraceptives — the Koromex diaphragm, the Koromex jelly, the H-R Emulsion jelly, and many other of the well known products of this company.

The display will incorporate a motion picture on this subject and another motion picture on the diagnosis and treatment of Trichomonas Vaginalis Vaginitis. Please be sure to call and get your copy of the Physician's Guide and samples of the Koromex and H-R Emulsion jelly.

Horlick's Malted Milk Corp. **Space No. 31**
Racine, Wisconsin

The remarkable digestibility of Horlick's even in difficult cases of infant and invalid diet has long been known. Recent laboratory tests show that the curd tension of Horlick's prepared with water is practically zero. Horlick's used as a modifier for milk also registered a lower curd tension than plain milk alone. This ease of digestion coupled with high nutritive value, derived both from full-cream milk and malted grain, have made Horlick's especially useful as a food-drink in fevers, post-operative cases and for the aged. Note especially the unique convenience of the Tablets for regular feeding of ambulatory cases of peptic ulcer.
You are cordially invited to visit our exhibit in Detroit.

The G. A. Ingram Company **Spaces No. 63-64-65**
Detroit, Michigan

The G. A. Ingram Company will, as usual, have several items of interest on display at their booth. Several new Burdick physiotherapy units will be on display, which will be of interest to everyone.

Jones Metabolism Equipment Co. **Space No. 9**
Chicago, Illinois

Exhibit will be in charge of one who is fully competent to discuss the wider scope of the uses of the metabolism test and its clinical interpretation. The mechanical features which have long been exclusively those of the Motor Basal will be demonstrated together with refinements which have still further assured leadership of the Motor Basal in the metabolism field.

A. Kuhlman & Company **Spaces No. 27-28**
Detroit, Michigan

A. Kuhlman & Company will demonstrate a new Waterless Basal Metabolism Apparatus, a new low-priced Portable Electro Cardiograph Apparatus, Modern Office Furniture, a number of Urological Specialties, and a selected line of Surgical Instruments.

Lea & Febiger **Space No. 36**
Philadelphia, Pennsylvania

Lea & Febiger will exhibit the following new works: Adair's Obstetrics and Gynecology, Clement's Anesthesia, Comroe on Arthritis, Eller on Tumors of the Skin, Hayden on The Rectum and Colon, Lewin on The Foot and Ankle, Master's Electrocardiogram, A Trudeau Foundation Study—Artificial Pneumothorax, Rony on Obesity and Leanness, Schwartz & Tulipan on Occupational Diseases of the Skin, Thienes' Toxicology, Vaughan on Cleft Lip. Advance material will be shown on Anderson's Diagnosis, Ballenger's Otology and Dennie & Pakula on Congenital Syphilis. New editions of many standard works will also be shown.

Lederle Laboratories, Inc. **Space No. 12**
New York, New York

The exhibit will feature a motion picture on post-encephalitic Parkinsonism and the response to treatment with Bellabulgara (Bulgarian Belladona). There will also be displayed Pharmaceutical Specialties together with Serums and Globulin Modified Antitoxins. All physicians are cordially invited to attend the booth and view the film on treatment of the Parkinson Syndrome.

Libby, McNeill & Libby **Spaces No. 76-77**
Chicago, Illinois

The exhibit of Libby, McNeill & Libby will feature a novel presentation of the story of Libby's specially homogenized Baby Foods and Libby's Evaporated Milk. A marionette stage occupies a prominent position in the booth. The action of the puppets is synchronized with a sound slide film so that the story is both pictorial and verbal. Doctors hear the story by listening in at handily placed cradle telephones. This presentation is supplemented by illuminated photomicrographs and displays of the Libby products which are being so widely used in infant feeding.

Liebel-Flarsheim **Space No. 3**
Cincinnati, Ohio

Liebel-Flarsheim will exhibit a complete line of the well-known Short Wave Generators, as well as the famous Bovie Electro-Surgical Units and the Raysun Ultra-Violet and Infra-Red Therpeutic Lamp.

A cordial invitation is extended to visit the Liebel-Flarsheim Booth to inspect this new apparatus and have it demonstrated to you.

Eli Lilly & Company **Space No. 71**
Indianapolis, Indiana

Eli Lilly and Company produced the first commercial preparation of Insulin, contributed to development of liver therapy, and has been responsible for many other therapeutic advancements. Information concerning all Lilly products will be available at the Lilly exhibit where "Merthiolate" (Sodium Ethyl Mercuri Thiosalicylate, Lilly), "Sodium Amytal" (Sodium Iso-amy Ethyl Barbiturate, Lilly), and other important products will be featured.

J. B. Lippincott Company **Space No. 2**
Philadelphia, Pennsylvania

Among the newer Lippincott publications on display will be the widely acclaimed "Modern Dermatology and Syphilology" by Becker and Obermayer, and, of course, the phenomenally successful Thorek's "Modern Surgical Technic." Other important new works include Dickson and Diveley's "Functional Disorders of the Foot," Scudder's "Shock," and Barborka's "Treatment by Diet." Every physician who has children among his patients will welcome Kigelmass' "Newer Nutrition in Pediatric Practice."

M & R Dietetic Laboratories, Inc. **Space No. 43**
Columbus, Ohio



Similac, a food for infants deprived partially or entirely of maternal milk, will be displayed by M & R Dietetic Laboratories, Inc. Messrs. D. O. Cox and L. A. MacDonald will appreciate the opportunity to discuss the merit and suggested application of this product for the normal or special case.

Mead Johnson & Company **Spaces No. 72-73**
Evansville, Indiana

Servamus Fidem. Mead Johnson & Company will exhibit several new products in addition to Dextro-Maltose, Pablum and Oleum Percomorphum. They will also have on display various examples of the slogan "Servamus Fidem"—We Are Keeping the Faith.

Medical Arts Surgical Supply Company
Grand Rapids, Michigan **Spaces No. 59-60**

The Medical Arts Surgical Supply will display a fine representation of modern office equipment, including some of Grand Rapids' own office desks and chairs. A very complete line of stainless steel instruments will be shown, also the new McKesson metabolor and numerous suction pumps.

Medical Case History Bureau **Space No. 25**
New York, New York

Economical Case History System. In addition to the economy factor, the Info-Dex Record Control System features a really ingenious yet simple diagnostic guide. Info-Dex catalogs histories, developments and diagnoses in such a manner that they are instantly available for reference. An exhibit of this compact, efficient filing system may be found in Booth No. 25. A few minutes spent in studying the advantages of modern medical filing will be repaid many times in increased office efficiency.

Medical Protective Company **Space No. 16**
Wheaton, Illinois

The most exacting requirements of adequate liability protection are those of the professional and liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representatives there: Mr. A. G. Schulz, Mr. J. O. Wilson and Mr. O. N. Harten. They are thoroughly trained in Professional Liability underwriting.

The Mennen Company **Space No. 67**
Newark, New Jersey

The Mennen Company will exhibit their two baby products—Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90 per cent of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and receive your kit containing demonstration sizes of their shaving and after-shave products.

Merck & Company, Inc. **Space No. 13**
Rahway, New Jersey

Merck & Co., Inc., are featuring the following preparations at their exhibit: The Vitamins—individual vitamins of the B complex, including those recently synthesized in the Merck Research Laboratories—Vitamin B_6 and Pantothenic Acid. Erythrol Tetranitrate Merck—for arterial hypertension—new, improved tablets. Mecholyl—for the treatment of arthritis and chronic ulcers by the method of iontophoresis. Vinethene—an inhalation anesthetic agent for short operative procedures. Information on Merck Medicinal Specialties, Prescription Chemicals, Vitamins, and other Merck products may be obtained at the Merck booth.

The Wm. S. Merrell Company **Space No. 44**
Cincinnati, Ohio

The Merrell exhibit will feature new prescription specialties of timely interest, in addition to several well-known therapeutic agents of established usefulness. Physicians are invited to drop by for a personal supply of Catarrhal Oravax, for protection against the common cold.

Michigan Medical Service **Space No. 68**
Michigan Hospital Service
Detroit, Michigan

Visit this booth where representatives will distribute literature and explain the Medical Service Plan and the Surgical Benefit Plan of Michigan Medical Service and the Hospital Service Plan of Michigan Hospital Service. A chart explaining in detail the necessary "paper work" of the attending physician will be displayed. Doctor, come in and see what your organization and the hospitals' organization are doing *(See page 596).*

C. V. Mosby Company **Space No. 50**
St. Louis, Missouri

Doctors attending the Michigan State Medical Society Convention are cordially invited to visit the Mosby Booth—there to inspect the new publications which will be on display. Outstanding new volumes on surgery, allergy, dermatology, operative orthopedics, nervous and mental diseases, heart diseases, x-ray, gynecology and obstetrics, materia medica, and practice of medicine will be shown. Browse through this new material at the Mosby Booth.

The Muller Laboratories **Space No. 52**
Baltimore, Maryland

Mull-Soy will be shown at the Muller Booth. The many merits of this soy bean milk-substitute in the diets of those persons—infants, children and adults—who are allergic to cow's milk will be explained, as well as the other uses for this interesting product.

Parke, Davis & Company **Spaces No. 18-19-20-21**
Detroit, Michigan

Featured in the Parke, Davis Exhibit will be the sex hormones, Theelin and Theelol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparation, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride preparations.

The Pelton & Crane Company **Spaces No. 37-38**
Detroit, Michigan

Watch for the new Pelton "E & O" Surgical Light in this year's Pelton & Crane Exhibit. Pelton engineers have done away with old-fashioned rear-adjustments, provided cool, color-corrected beams that penetrate from two directions and defy obstruction, and finished their amazingly low-priced masterpiece in Duranite and chrome. Attracting attention also will be the Pelton FL (6") Autoclave.

Pet Milk Sales Corp. **Spaces No. 29-30**
St. Louis, Missouri



An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

Petrolagar Laboratories, Inc. **Space No. 23**
Chicago, Illinois

This year Booth No. 23 will be occupied by Petrolagar Laboratories, Inc.. who offer, in addition to samples of the Five Types of Petrolagar, an interesting selection of descriptive literature and anatomical charts. Ask Mr. L. F. Harrison or Mr. R. L. Corkery to show you the new Habit Time booklet. It is a welcome aid for teaching bowel regularity to your patients.

Philip Morris & Company **Space No. 42**
New York, N. Y.

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Professional Management **Space No. 1**
Battle Creek, Michigan

PM

Henry C. Black and Allison E. Skaggs of Professional Management will again be available for Free Consultation Service with members of the Michigan State Medical Society. Bring your professional and business problems to them for confidential discussion.

Ralston Purina Company, Inc. **Space No. 6**
St. Louis Missouri



The makers of Ry-Krisp have Low Calorie and Allergy Diets available to the profession in quantity. Of special interest is a new book on grains and their part in the American dietary. Samples of Ralston, the natural wheat cereal naturally fortified with wheat germ, and Ry-Krisp, the whole rye wafer, also available.

Frank N. Ruslander **Space No. 82**
Detroit, Michigan

Exhibit of Medical Photography, featuring the value of photography to the medical profession. Photographs for teaching, by means of slides, illustrations for case histories and published articles, et cetera, will be shown. The application of color photography to all branches of medicine and surgery will be demonstrated. Proper preparation of charts, typed material and drawings for lantern slides will also be displayed.

W. B. Saunders Company **Space No. 14**
Philadelphia, Pennsylvania

These publishers will have an exhibit unusually attractive to the medical profession because of the great number of brand new books and new editions which they will show. Included among these are: Buckstein's "X-Ray of the Alimentary Tract," Wilder's "Diabetes Mellitus," Walters & Snell's "Diseases of the Gallbladder," "Interpretation of Electrocardiograms" by Paul White and Ashton Graybiel, new edition of Levine's "Clinical Heart Disease," and many others.

Schering Corporation **Space No. 49**
Bloomfield, New Jersey

Representatives will be pleased to discuss latest developments in hormone therapy. New products on display will be Cortate (desoxycorticosterone acetate), Anteron (gonadotropic hormone from mares' serum), Pranturon (gonadotropic hormone from pregnancy urine), Pranone (orally effective progestin) as well as the other well-known Schering preparations—Progynon-B, Progynon-DH, Proluton, Oreton, and Neo-Iopax.

Scientific Sugars Co. **Space No. 47**
Columbus, Indiana

Representatives of the Scientific Sugars Company will welcome the Michigan doctors at its booth, where Cartose, Hidex, and Kinney's Yeast Extract, liquid and tablets, will be on display. Also, new preparations of interest to the physicians will be shown.

Sharp & Dohme **Space No. 39**
Philadelphia, Pennsylvania

Sharp & Dohme will have their new modern display at Detroit this year, featuring Propadrine Hydrochloride Products, "Lyovac" Bee Venom Solution, and other "Lyovac" Biologicals. There will also be on display a group of new pharmaceutical specialties and biologicals prepared by this house, such as Rabellon, Daldrin, Padrophyll, Elixir Propadrine Hydrochloride, Riona, Depropanex, and Ribothiron. Capable, well-informed representatives will be on hand to welcome physicians and furnish information on Sharp and Dohme products.

S.M.A. Corporation **Space No. 22**
Chicago, Illinois

Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S.M.A. Corporation. Physicians who visit this exhibit may obtain complete information, as well as samples, of S.M.A. Powder and the special milk preparations—Protein S.M.A. (acidulated), Alerdex and Hypo-Allergic Milk.

Smith, Kline & French Laboratories **Space No. 10**
Philadelphia, Pennsylvania

No Registration Required. Up-to-date information about "Benzedrine Inhaler," "Benzedrine Sulfate," "Benzedrine Solution," Pentnucleotide, Feosol Tablets and Elixir, Oxo-ate "B," Eskay's Neuro Phosphates and "Paredrine Hydrobromide with Boric Acid Ophthalmic" may be obtained in convenient envelopes from literature dispensers. If additional data are desired, the representative will be glad to answer any questions.

E. R. Squibb & Sons **Space No. 8**
New York, New York

Physicians attending the Michigan State Medical Society meeting are cordially invited to visit the Squibb Exhibit. The complete line of Squibb Vitamin, Glandular, Arsenical and Biological Products and Specialties, as well as a number of interesting new items, will be featured. Well-informed Squibb Representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

Frederick Stearns & Company **Spaces No. 45-46**
Detroit, Michigan

Doctors are cordially invited to visit our attractive convention booth to view and discuss outstanding contributions to medical science developed in the Scientific Laboratories of Frederick Stearns & Company. Our professional representatives will be pleased to supply all possible information on the use of such outstanding products as Neo-Synephrin Hydrochloride for intranasal use, Mucilose (flakes and granules) for bulk and lubrication, Insulin-Stearns, Gastric Mucin, Trimax and Sulfanilamide tablets. A complete line of Vitamin products will also be displayed.

Charles C Thomas, Publisher **Space No. 78**
Springfield, Illinois

New books to be displayed by Charles C Thomas include: McLellan's "Neurogenic Bladder"; Barnes' "Electrocardiographic Patterns"; Pancoast, Pendergrass, and Schaeffer's "The Head and Neck in Roentgen Diagnosis"; Roesler's "Atlas of Cardioroentgenology"; Sulzberger's "Dermatologic Allergy"; Joachim's "Practical Bedside Diagnosis and Treatment"; Steindler's "Orthopedic Operations"; Rankin and Graham's "Cancer of the Colon and Rectum"; McNeill's "Roentgen Technique"; Harkin's "Treatment of Burns"; Hamblen's "Endocrine Gynecology."

U. S. Standard Products Company **Space No. 34**
Woodworth, Wisconsin

The U. S. Standard Products Company will have a display at the Michigan State Medical meeting in September. Their Michigan representative will be present to greet you and a few minutes spent at this booth will be enjoyable to you and greatly appreciated by the company.

Vernor's Ginger Ale **Space No. 4**
Detroit, Michigan

The James Vernor Co. will continue to bring to the attention of the physicians of Michigan the unique high quality of its product as well as its important contribution in the field of medicine. Members will be invited to enjoy Vernor's and receive literature. The display should also be attractive.

Westinghouse X-Ray Company, Inc. **Space No. 62**
Detroit, Michigan

Westinghouse X-Ray Company will exhibit for the first time in the middle west the new Simplex Unit. This Unit is the latest development in high-powered shockproof diagnostic equipment for both vertical and horizontal fluoroscopic and radiographic work. It is economical in its space requirements and economical in use.

John Wyeth & Brother, Inc. **Space No. 5**
Philadelphia, Pennsylvania

You are cordially invited to visit the John Wyeth and Brother exhibit, where the following pharmaceutical specialties will be exhibited: Amphojel (Wyeth's Alumina Gel) for the treatment of hyperacidity and peptic ulcers; Alulotion Ammoniated Mercury with Kaolin for the treatment of impetigo; Bepron, Wyeth's Beef Liver with Iron for the nutritional anemias; Bewon Elixir, the palatable appetite stimulate and vehicle; Kaomagma Wyeth's Magma of Alumina and Kaolin for the management of diarrhea and colloitis; Mucara for the treatment of intestinal stasis.

Zimmer Manufacturing Company **Space No. 48**
Warsaw, Indiana

Zimmer Manufacturing Company will exhibit a complete line of Fracture Equipment. Mr. Fisher will be in charge of the booth, and will gladly demonstrate any of the items on display. The Luck Bone Saw, Adjustable Reamers and Hip Cups will be among the new instruments on exhibition.

REFERENCE COMMITTEES

Credentials Committee

E. O. Foss, M.D., **Chairman**
Luther W. Day, M.D. C. K. Hasley, M.D.
V. Vandeventer, M.D.

On Officers' Reports—Parlor G

E. A. Oakes, M.D., **Chairman**
A. T. Hafford, M.D. R. C. Jamieson, M.D.
A. E. Stickley, M.D. G. H. Yeo, M.D

On Reports of The Council—Parlor I

Ralph H. Pino, M.D., **Chairman**
E. N. D'Alcorn, M.D. Paul Kniskern, M.D.
Philip A. Riley, M.D. C. L. Hess, M.D.
A. E. Catherwood, M.D. W. H. Alexander, M.D.

On Reports of Standing Committees—Parlor H

E. D. Spalding, M.D., **Chairman**
L. J. Johnson, M.D. P. L. Ledwidge, M.D.
C. E. Dutchess, M.D. Carl F. Snapp, M.D.
Harvey Hansen, M.D. A. L. Arnold, Jr., M.D.
S. A. Sheldon, M.D. F. M. Doyle, M.D.
T. E. Hoffman, M.D.

On Reports of Special Committees—Parlor J

A. V. Wenger, M.D., **Chairman**
Ed. Meisel, M.D. M. G. Becker, M.D.
H. T. Sethney, M.D. C. T. Ekelund, M.D.
C. S. Kennedy, M.D I. H. Zielke, M.D.

On Amendments to Constitution and By-Laws—Parlor K

C. F. DeVries, M.D., **Chairman**
Wm. Ellet, M.D. Donald R. Brasie, M.D.
H. L. Morris, M.D. D. Bruce Wiley, M.D.

On Resolutions—(Room to be Assigned)

Dean W. Myers, M.D., **Chairman**
Wm. S. Reveno, M.D. W. B. Cooksey, M.D.
Henry Cook, M.D. D. C. Denman, M.D.

Reference Committee Reports are to be submitted to the House of Delegates in triplicate.

SUMMARY OF PROCEEDINGS OF HOUSE OF DELEGATES—1939

The seventy-fourth annual meeting of the House of Delegates of the Michigan State Medical Society was held at Grand Rapids, September 18, 1939.

The House of Delegates:

1. Accepted and adopted with thanks the reports of the President (988*), President-Elect (989), The Council (989), Delegates to the A.M.A. (989), Legislative Committee (989), Public Relations Committee (989), Representatives to Joint Committee on Health Education (989), Cancer Committee (990), Postgraduate Medical Education Committee (990), Ethics Committee (990), Preventive Medicine Committee, including advisory committees on Tuberculosis Control and Syphilis Control (990), Radio Committee (995), Advisory Committee to Women's Auxiliary (995), Liaison Committee with Hospital Association (995), Liaison Committee with State Bar of Michigan (995), Mental Hygiene Committee (995), Iodized Salt Committee (997), Maternal Health Committee (995), Advisory Committee on Nurses Training Schools (995), Membership Committee (995). The House of Delegates received with thanks the report of the Committee on Distribution of Medical Care (994).

2. Received with thanks the report of The Council on Michigan Medical Service and empowered The Council to complete the present plan and to put it into operation (994).

3. Referred to the 1940 session of the House of Delegates the following proposed amendments to the Constitution of the M.S.M.S.:

(a) Article III, Secs. 1, 2. 3, 4, 7 re Membership Classifications (986).
(b) Article III, Sec. 1, and new section 3, creating Junior (Interne) Membership; to renumber old Sections 3, 4, 5, 6, to read 4, 5, 6, 7, respectively (987).
(c) Article IV, Sec. 3. re voting power of the Speaker and Society officers in the House of Delegates (986).

4. Postponed indefinitely the proposed amendment to Constitution, presented to House of Delegates in 1938, re membership (Article 3, Section 1) (987).

5. Amended the By-laws, M.S.M.S., as follows:

Chapter 4, Sec. 4, re Duties of Secretary (997).
Chapter 1, New Sec. 6. Transfer of Membership from one county to another (997).
Chapter 3, Sec. 7. Time of Induction of Society Officers (997).
Chapter 6, Sec. 1. List of Society's Committees (997).
Sec. 2. Eliminating exact number to serve on Legislative Committee (998).
Sec. 4. Duties of Medical-legal Committee (999).
Sec. 6. Making Cancer Committee an Advisory Committee of Preventive Medicine Committee (1000).
Sec. 7. Reorganizing Preventive Medicine Committee (1000).
Sec. 9. Eliminating exact number to serve on Public Relations Committee (1000).
Sec. 10. Eliminating exact number to serve on Ethics Committee (1000).
Chapter 6, by renumbering Sections 7 to 10, inclusive (1000).

6. Elected the following to Emeritus Membership (996): Drs. W. H. Riley, John Harvey Kellogg, C. C. Landon of Battle Creek; George L. Cramer of Owosso; Don M. Campbell, Wm. M. Donald, Stanley G. Miner, Rollin H. Stevens of Detroit; A. G. Holbrook of Branch County; J. B. Bradley of Eaton Rapids.

To Retired Membership (996): Drs. Walter E. Spicer and Henry Gray Glover of Jackson; Milan Coburn of Coopersville.

Recommended to the A.M.A. House of Delegates that George C. Hafford, M.D. be elected an Affiliate Fellow of the A.M.A. (996).

7. Presented scroll to Harold A. Miller, M.D. for his services to the Michigan Medical profession (970).

8. Adopted resolution that a suitable emblem be presented to Philip A. Riley, M.D. for his services as Speaker of the House of Delegates, M.S.M.S. (1002).

9. Approved Resolutions concerning
(a) U. S. Neutrality (996).
(b) Changing the Section on Radiology to "Section on Radiology, Pathology and Anesthesia" (997).
(c) Radio advertising of patent medicines (995).

10. Elected:
(a) H. H. Cummings, M.D., Ann Arbor, Councilor of the 14th District (996).
(b) Roy C. Perkins, M.D., Bay City, Councilor of the 10th District (996).
(c) L. G. Christian, M.D., Lansing, Delegate to the A.M.A. (997).
(d) George J. Curry, M.D., Flint, Alternate Delegate to the A.M.A. (1001).
(e) Ralph H. Pino, M.D., Detroit, Alternate Delegate to the A.M.A. (1001).
(f) P. R. Urmston, M.D., Bay City, President-Elect (1001).
(g) O. D. Stryker, M.D., Fremont, Speaker of the House of Delegates (1001).
(h) J. J. O'Meara, M.D., Jackson, Vice-Speaker of the House of Delegates (1002).

Selection of place of 1940 Annual Meeting referred to The Council (1001).

11. Thanked Kent County Medical Society for hospitality (1002).

*Members refer to pages in the November, 1939, issue of THE JOURNAL M.S.M.S.

ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY, 1939-40

There has been no meeting of the Advisory Committee to the Woman's Auxiliary during 1940 as there have been no questions for our consideration. We have been in frequent communication with Mrs. L. G. Christian, President of the Woman's Auxiliary, and she has not deemed it necessary to meet with our Committee.

Respectfully submitted,
H. W. WILEY, M.D., *Chairman*
C. W. BRAINARD, M.D.
H. S. COLLISI, M.D.
L. C. HARVIE, M.D.
WM. S. JONES, M.D.

ANNUAL REPORT OF PUBLIC RELATIONS COMMITTEE, MSMS, 1939-40

The twelve members of your Public Relations Committee were each assigned districts of Michigan, for contact work with the county medical societies. Practically every society has been visited by a representative of the Public Relations Committee, during the last twelve months. Following the visitation, each member sent a detailed report of the condition of the profession in the county, to the Executive Office, for presentation and discussion at meetings of the Public Relations Committee. In this manner, the State Society has been able to anticipate incipient problems, and to help in bringing relief to conditions which have been existent for a number of years.

A chief concern of the Public Relations Committee during 1939-40 was the dissemination of information to members of county medical societies concerning Michigan Medical Service.

The Committee has continued to integrate the several projects referred by the Council and its Executive Committee, and has stimulated the membership to a better appreciation of the activities of organized medicine in Michigan.

The Committee, out of its five years' experience, would respectfully recommend: (1) The establishment of a Bureau of Public Relations in the Michigan State Medical Society, to perform the important duty of placing before the public the medical viewpoint on facts associated with the distribution of medical care in this state. (2) We recommend more interest on the part of county Legislative Committees in the problems facing Medicine between now and the first of January, 1941. (3) We recommend that physicians be urged to carry their influence in the community beyond the mere practice of medicine.

Respectfully submitted,

L. Fernald Foster, M.D., *Chairman*
Wm. M. Brace, M.D.
A. F. Bliesmer, M.D.
A. E. Catherwood, M.D.
C. G. Clippert, M.D.
H. S. Collisi, M.D.
L. E. Holly, M.D.
D. M. Howell, M.D.
A. H. Miller, M.D.
H. L. Morris, M.D.
A. W. Strom, M.D.
Geo. M. Waldie, M.D.

ANNUAL REPORT OF RADIO COMMITTEE, 1939-40

A series of weekly radio programs was presented over a network of eleven stations in Michigan and CKLW of Windsor, Ontario, during the period from November 6, 1939, through May 10, 1940.

The following programs were broadcast with the cooperation of the Radio Committees of the County Societies in which the stations are located, these programs sponsored by the Joint Committee on Health Education and through the coöperation of the University of Michigan Extension Service, Dr. C. A. Fisher, Director:

The Preservation of Good Health
Prevention of Heart Disease
First Aid Procedures
Appendicitis
Diseases of the Liver and Gallbladder
Cancer is Curable
Allergy
Scarlet Fever
What to Eat
Feeding the New Baby
Child Spacing and Its Relation to the Mother's Health
Have You a Doctor?
Painless Labor
Immunization for your Child
Exercise for the Middle Aged
Pneumonia
Mental Health
Nervousness, an Everyday Problem
Nervous Indigestion
Centennial of Dentistry
High Blood Pressure
Syphilis
Tobacco and Your Health
Public Health Programs in Michigan

The Programs were broadcast over the following stations:

WELL, Battle Creek
WBCM, Bay City
CKLW, Detroit-Windsor
WFKF, Flint
WOOD, Grand Rapids
WHDF, Hancock
WIBM, Jackson
WKZO, Kalamazoo
WKBZ, Muskegon
WBEO, Marquette
WHLS, Port Huron
WMAM, Menominee

Requests were received from the Department of Health of the City of Philadelphia and from the Maternal Welfare Committee of the Oregon State Medical Society for permission to re-broadcast the program on *Painless Labor*. After consultation with the President of the Society, Dr. Burton R. Corbus, permission was granted.

In addition to the regular schedule, several of our manuscripts were used by Dr. C. C. Corkhill of the Menominee County Health Department for local broadcast.

Arrangements are now being made for the re-broadcast of the programs over the new station WSAM at Saginaw under the direction of Dr. Frederick J. Cady, Chairman of the Public Relations Committee of the Saginaw County Medical Society.

The Chairman wishes especially to thank Dr. Grover C. Penberthy of Detroit for the fine way in which he handled the difficulties encountered in obtaining broadcast time over station CKLW, and for the unusual amount of time and effort expended in the direction of broadcasting from Detroit. Due to his efforts a program was broadcast every week over CKLW from January 5 through May 10, 1940.

The Chairman would also like to thank Dr. A. J. Baker of Grand Rapids and Dr. R. G. Janes of Marquette for their help in the preparation of manuscripts.

Respectfully submitted,

J. Duane Miller, M.D., *Chairman*
A. J. Baker, M.D.
R. G. Janes, M.D.
W. S. Gonne, M.D.
G. C. Penberthy, M.D.

ANNUAL REPORT OF COMMITTEE ON NURSES' TRAINING SCHOOLS, 1939-40

The Committee on Nurses' Training Schools held several meetings with the Board of Registration of Nurses in Lansing in an effort to make some arrangements to reopen the smaller nurses' training schools in Michigan. The whole situation boils down to the fact that the United States Public Health Service in their regulations demand that a nurse cannot train in a hospital of not less than an average daily census of 100 patients or if less than that they shall have suitable affiliation.

The attitude of the State Board of Registration of Nurses is that every nurse who graduates from a training school in Michigan should be able to enter Public Health nursing if she so desires. The Board is very firm in this stand and apparently a nurse in order to do public health nursing must have a different type of education than those that formerly cared for the people who were sick. It is very evident that as long as this rule is held by the United States Public Health Service that the training schools in smaller hospitals will have to be accompanied by rather expensive affiliations.

Respectfully submitted,

A. L. Arnold, M.D., *Chairman*
W. C. Ellet, M.D.
E. A. Oakes, M.D.
F. J. O'Donnell, M.D.
P. A. Riley, M.D.
A. E. Stickley, M.D.

ANNUAL REPORT OF COMMITTEE ON DISTRIBUTION OF MEDICAL CARE, 1939-40

The Committee held four meetings—November 26, 1939, in Detroit; February 18, 1940, in Flint; April 18, 1940, in Detroit; and May 15, 1940, in Detroit.

The progress of the Michigan Society for Group Hospitalization and Michigan Medical Service has been discussed and followed. No action taken.

It was felt that various phases of any problems related to the distribution of medical care in Michigan could best be attacked after adequate study of what are the various factors in medical care and where they are available. Accordingly, it was decided to produce "spot maps" which would show accurately where the following facilities are available in Michigan:

1. Practicing physicians (possibly with classification of specialties).

2. Laboratory facilities of various classifications:
(a) Urinalysis, both chemical and microscopic.
(b) Complete blood count, including smear and differential count.
(c) Special blood tests, such as blood sugar, blood urea, etc.
(d) Bacteriological interpretation of smears, cultures, stools, sputum.
(e) Microscopic diagnoses of pathological tissues.
(f) Satisfactory x-rays of:
(1) Bones of extremities.
(2) Spine, chest and head.
(3) Gastro-intestinal and urinary systems.

3. Hospital beds (both "approved" and those "not approved," including convalescent beds, with possible classification).

To this end letters were sent to the secretary of each county medical society requesting this information for his territory. The response to these letters has been excellent, and forty-four out of the fifty-four county societies of the State Society have responded. The actual development of the spot maps will be designed to relate the distribution of the above factors not only to the distribution of population throughout the state, but to the purchasing power of the population as well. The completion of the project in detail is awaiting the results of the 1940 census. Preliminary maps are being developed on the basis of the 1930 census figures.

A short comparison of the costs of crippled and afflicted child cases treated at the University of Michigan Hospital and similar cases treated in hospitals in Wayne, Genesee and Muskegon Counties was provided at the request of the Council.

The Genesee County Society requested The Council to investigate the relationship of the Specialty Boards to the practice of medicine in Michigan. This matter was referred to the Committee on the Distribution of Medical Care. At a special meeting in Flint, at which the Genesee County Medical Society was represented by its officers and several of its members, the problem was gone over in detail.. At this meeting it was brought out that Act 158 of the Michigan Laws of 1939 provides that there shall be consultation between the Crippled Children Commission and the County Medical Society before designation of specialists to treat crippled children. It was also brought out that various governmental bodies are using membership in the American Specialty Boards as the sole criterion for competence in examining and certifying school children for special classes. The related question of the cancellation of various hospitals for interneship by the American Medical Association was discussed. It was brought out that the Specialty Boards has raised their scholastic and other requirements to such a point that they had left no means by which a man through continued self and institutional training was recognized as a possible candidate for membership.

This discussion was summed up into two points:

1. Specialty Boards have too rigid requirements.

2. Lay groups must be impressed that there are qualified physicians who are not members of the specialty boards.

Dr. F. B. Miner of Flint and Dr. Frank Van Schoick of Jackson representing the Child Welfare Committee, an advisory committee to the Preventive Medicine Committee, reviewed the confusion of laws and regulations, duplications of effort, and variations in fee schedules for medical services to those coming under governmental aid. Following adequate discussion it was moved that The Council be requested to compile data concerning the practices followed in all the counties in regard to the operation of federal, state, county and local welfare laws as applying to medical welfare. (Subsequently The Council authorized the executive office in Lansing to assemble this desired data. Also, subsequent to this motion a codification of the rules for the medical indigent and low income group in Flint and Genesee Counties was published in Flint through the agency of a charitable foundation.)

Subsequent to the discussion of the American Specialty Boards the brochure of each of the 17 Boards was studied and analyzed as to its basic requirements for applicants. At the meeting May 15, 1940, the Specialty Board problem was thoroughly discussed. It was pointed out that most of our Michigan problems were purely due to Michigan laws and State rulings, and therefore of importance only to us in Michigan. Therefore, the following notation was sent to the Executive Committee of The Council:

"The selection, by lay boards dealing with crippled and afflicted persons, of specialists designated as such by the various Medical Specialty Boards, has served to dislocate the orderly practice of medicine so that physicians qualified by years of experience are denied the privilege of rendering service.

"Any movement looking toward better medicine and surgery for the public must be applicable to the profession as a whole and not to only a chosen few if there is to be any general support for the movement.

"Therefore, be it resolved that action be initiated towards a liberalization of requirements as set by the various specialty boards so that the factor of experience be given its due weight in the qualification of candidates for license from these specialty boards.

"The committee suggests to The Council that it instruct our delegates to the A. M. A. to bring this matter to the attention of the House of Delegates of the A. M. A. at its next annual meeting."

Respectfully submitted,
S. W. Hartwell, M.D., *Chairman*
H. F. Becker, M.D.
T. S. Conover, M.D.
R. H. Pino, M.D.
Wm. S. Reveno, M.D.
J. M. Robb, M.D.
R. G. Tuck, M.D.
C. E. Umphrey, M.D.

ANNUAL REPORT OF MEDICAL-LEGAL COMMITTEE, 1939-40

The House of Delegates on September 18, 1939, amended the By-laws of the Michigan State Medical Society to limit the work of the Medical-legal Committee, first to meet the objections of the American Bar Association; second, to keep the Michigan State Medical Society free from federal income taxation. Beginning January 1, 1940, the State Society ceased defending members in alleged malpractice actions which arose on and after that date. The Committee, however, was authorized by the new By-law to advise members pertaining to the rights and duties of physicians in the practice of their profession, and this the Committee has done in numerous cases since the first of the year.

Of the twelve cases referred to your Committee prior to January 1, 1940, all have been adjudicated to date except three.

Since January 1, 1940, only one new case (the cause of action of which arose in 1939) has been reported to your Committee, and it is possible that responsibility for this case may be assumed by a private insurance company.

In accordance with the By-laws, your Medical-legal Committee stands ready at all times to give advice

and assistance to any members of the Michigan State Medical Society who are faced with medico-legal problems.

Respectfully submitted,
S W. Donaldson, M.D., *Chairman*
L. G. Christian, M.D.
E. O. Foss, M.D.
Wm. J. Stapleton, Jr., M.D.
E. A. Wittwer, M.D.

ANNUAL REPORT OF THE ETHICS COMMITTEE, 1939-40

The Ethics Committee of the Michigan State Medical Society desires to report that there is absolute quiet on the "Maginot Line" of medical ethics. There are no ominous noises in the air and there is no evidence of intending blitzkrieg. Our physicians are evidently minding their own business and practicing ethical medicine.

Respectfully submitted,
Horace Wray Porter, M.D., *Chairman*
F. M. Doyle, M.D.
T. F. Heavenrich, M.D.
C. R. Keyport, M.D.
A. V. Wenger, M.D.

ANNUAL REPORT OF PREVENTIVE MEDICINE COMMITTEE, 1939-40

Your Preventive Medicine Committee held three meetings during the year: on November 8, 1939, in Grand Rapids, on February 4, 1940, and on June 23, 1940, in Detroit.

At the last State Meeting the Preventive Medicine Committee was reorganized. It is now composed of the chairmen of the various committees having to do with health education, the State Commissioner of Health and a chairman appointed by the President.

The Committee received reports and recommendations from its various advisory committees and resubmitted them to The Council for final action. A summary of these reports will be given by the chairmen of the several committees.

1. *Program of Preventive Medicine.*
   a. *State Meeting.* The names of several essayists were suggested by the Committee as speakers for the General Assembly.
   b. *Regional Conferences.* The Committee recommends that at these post-graduate conferences preventive measures receive more attention.
   c. *County Medical Societies* are urged to devote more meetings to subjects of preventive medicine, viz.: tuberculosis, syphilis, mental hygiene, cancer, medical education, industrial medicine, school health, maternal and infant care, and heart disease.
2. *County Health Units:* During the past years, several new County Units have been formed. However, as in past years, the Committee wishes to stress the importance of having all counties formed into County Health Units (not practicing units) administered by a full-time health officer.
3. *Health Agencies:* The Preventive Medicine Committee has had in attendance at all meetings, either as members of the Committee or as invited guests, representatives from the State Health Department and Advisory Council, University of Michigan, Children's Fund of Michigan, Kellogg Foundation, and Michigan Tuberculosis Society.

This has brought about a much better understanding of health problems. The health agencies have been able to contact and learn of the action of the various committees at a minimum cost of time and effort. The Society has been able to have the help, advice and good will of people whose entire time is spent in doing health work. We have been able to present the medical point of view, and hope they have received as much help from us as we have from them.

Respectfully submitted,
L. O. Geib, M.D., *Chairman*
R. S. Breakey, M.D.
J. D. Bruce, M.D.
A. M. Campbell, M.D.
Henry Cook, M.D.
Bruce H. Douglas, M.D.
Martin H. Hoffmann, M.D.
J. B. Jackson, M.D.
J. Duane Miller, M.D.
Fred B. Miner, M.D.
H. Allen Moyer, M.D.
Herman H. Riecker, M.D.
Wm. R. Torgerson, M.D.

ANNUAL REPORT OF CANCER COMMITTEE, 1939-40

The Cancer Committee held six regular meetings and one special meeting during the year. The final meeting will be held at the time of the State meeting in Detroit.

The Committee began its year's work upon the premise that its function was the education of the physician as opposed to lay education carried on by the Women's Field Army. It felt, however, that it should coöperate fully in this work and to that end the Field Representative was authorized to make talks to lay audiences.

Early in the year the cancer slides, used by physicians in their talks to lay audiences, were revised. There are some twelve sets of slides which have been centralized in the office in Lansing, with the exception of sets in Detroit, Ann Arbor and Grand Rapids. One set was donated to the State Health Department.

Some one hundred copies of a pamphlet on Cancer have been distributed to students through the Health Departments of the University of Michigan and Western State Teachers' College.

The work of Clifford H. Keene, M.D. as Field Representative has been most profitable, in the opinion of the Committee. The State Health Department has been very coöperative and in intimate relation with this work. Dr. Keene covered the state seeing practically all the physicians outside of Detroit, Flint and Grand Rapids. He discovered a number of irregular practitioners, one of whom has been prosecuted by the state. His survey has shown that in the larger centers cancer is well handled, its problems continually studied and experience reviewed. In the small communities he found the men cancer-conscious and receptive to any suggestions as to diagnosis and treatment. During the year many talks on cancer were given including a number of radio broadcasts.

An article by Dr. Keene, approved by the Cancer Committee and the Executive Committee of the Council, outlining the treatment advocated in various types of cancer has been published in The Journal of the State Society. Subsequent to the publishing of this paper, Dr. Lawrence Reynolds set forth in somewhat more carefully couched terms the x-ray treatment of various lesions. It is to be emphasized at this time that the method of treatment as outlined by Dr. Keene is an acceptable method—although one that time and experience may change—but is not advocated as the only acceptable method. However, any variations from such a course of treatment should only be carried out by men whose experience justify it.

H. Allen Moyer, M.D., Commissioner of Health, has felt that the field work has been of such importance that it should be continued and has arranged to provide for a Field Representative for another year, upon the understanding that the State Medical Society would continue to appropriate $500.00 toward his expenses. This has been approved by the Executive Committee of

the Council and Dr. Frank H. Power, of the Surgical Department of the University of Michigan, has been appointed as Dr. Keene's successor. Dr. Power comes highly recommended and another profitable year seems certain.

The Committee wishes to express its appreciation for the enthusiastic and sympathetic coöperation of Drs. Moyer and Carleton Dean of the State Department of Health, and of the officers of the State Medical Society. By way of its recognition of Dr. Keene's work may we quote a motion passed at the June meeting of the Committee, to wit: "that Dr. Keene be thanked for his reports, his unique and enthusiastic contribution to Medicine, his suggestions, and proffer to help his successor." Finally the Chairman wishes to thank his Committee for its able, willing and active support.

Respectfully submitted,

William R. Torgerson, M.D., *Chairman*
W. H. Alexander, M.D.
F. A. Coller, M.D.
Wm. A. Hyland, M.D.
A. B. McGraw, M.D.
Lawrence Reynolds, M.D.
C. V. Weller, M.D.

ANNUAL REPORT OF COMMITTEE ON MATERNAL HEALTH, 1939-40

The Committee on Maternal Health hereby presents its annual report to the House of Delegates.

One of the important accomplishments of the Committee has been the initiation of a maternal and neonatal mortality study, which has been requested of the Maternal Health Committee of each County Medical Society. It is proposed to make a five year study, to be conducted in each County Society, by its Committee on Maternal Health. Blanks to record information on deaths associated with pregnancy and childbirth, and blanks to record information on neo-natal deaths, have been placed in the hands of each Committee on Maternal Health, in each County Medical Society. These reports are to be sent to a central office each month and at the end of the year will be studied by the State Committee.

In 1938 a survey was prepared by the Committee to study the facilities for the Maternal and Newborn care which is rendered in all licensed maternity hospitals and maternity homes in the State. The actual survey was made by the State Social Welfare Commission, and it was not until recently that this task was accomplished and that a report was sent to your Committee. The Committee will have this report prepared for presentation before the House of Delegates at the Detroit meeting.

The Committee has been interested and has freely discussed the postgraduate instruction which is being given in Obstetrics, and which is being financed by Government grants, and administered through the Michigan Department of Health. The Committee feels that more physicians throughout the State might avail themselves of this course with great advantage, and it strongly approves a continuation of this postgraduate project, which may be abandoned unless a sufficient number of physicians take advantage of it.

The Committee has also been interested in means for increasing the amount of obstetric clinic material for teaching purposes at the University of Michigan, and still strongly feels that an increase of such material is a fundamental necessity. It was a disappointment when a financial plan that was approved by the Executive Committee of The Council was not approved by the Government.

A radio address, entitled "Painless Labor," was prepared by the Committee at the request of the Radio Committee of the State Medical Society.

Plans for future study by the Committee were discussed and it was suggested that a study of certain complications of pregnancy and their effect upon the mother's longevity would be a timely and practical research.

The Committee, which has held five meetings during the year, has had the coöperation of the Executive Committee and other officers of the State Medical Society at all times, and takes this occasion to express its appreciation.

Respectfully submitted,

Alexander M. Campbell, M.D., *Chairman*
Harold A. Furlong, M.D.
Norman F. Miller, M.D.
Ward F. Seeley, M.D.
Harold W. Wiley, M.D.

ANNUAL REPORT OF CHILD WELFARE COMMITTEE, 1939-40

Your new Committee held two of its meetings in state institutions caring for children, viz.—School for the Deaf at Flint and School for the Blind at Lansing. Required health programs of each institution were presented briefly by each staff. At the School for the Deaf conditions were deplorable. The per capita expenditure of $931 in 1921 had been cut to $350 in 1939. The new Superintendent, Mr. Harley Z. Wooden, and the medical attendant, a pediatrician, Dr. Lafon Jones, outlined a schedule of marked improvement. Philanthropic individuals and charitable societies of Flint had provided considerable physical equipment and necessary clothing for the children but much more was needed. Dr. Jones has instituted medical standards for records and practice. There were none previously. At the School for the Blind all conditions were much better.

Recommendation—The Committee should visit our State Institutions which care for children for the sake of mutual benefit and understanding.

The Committee has coöperated with Dr. A. H. Whittaker, State Chairman of Child Welfare of the American Legion. From this there has come the recommendation to each County Medical Society to appoint a special advisory committee to assist their local Legion groups working on Child Welfare, of which there are some 480 in the State.

The principles of a model plan of Preventive Medicine objectives and methods have been adopted to be recodified to include the recommendations of the various committees of our State Society. Its purpose is for a uniform code for members of the profession, public health agencies, and committees of welfare workers. This "Plan" for Michigan is in progress of completion.

The "Immunization Card" accompanying birth certificates and the pamphlet on "Immunization Procedures" have been reviewed and a few up-to-date changes have been made for a new edition by the State Department of Health.

The Committee recommended the recodification of the State Medical Care laws which, due to their complexity, make distribution of medical care unsatisfactory and inefficient. The Council referred this to the Committee on Distribution of Medical Care.

Assistance to and coöperation with the Maternal and Child Health division of the State Department of Health have been given in each meeting.

Educationally—three papers were prepared for the Joint Committee on Health Education, viz.—"Vitamins" by Dr. Icy Macy Hoobler, "Growth and Development" by Dr. James Wilson, and "Care of Communicable Diseases in the Home" by Dr. David J. Levy. Two scripts for Radio were prepared by Dr. Leon DeVel—"Scarlet Fever" and "Immunization of Your Child."

Sub-Committee on Iodized Salt

The Sub-Committee on Iodized Salt (Thomas B. Cooley, M.D., David J. Levy, M.D., Edgar Martmer, M.D., Frank VanSchoick, M.D., and F. B. Miner, M.D., Chairman) has had three conferences with representatives of the Federal Food and Drug Administration since April 1. It is learned that Michigan's Iodized Salt was saved by the intervention of Surgeon General Parran's Department early last year. No one of the Committee knew of the imposed regulations. It is hoped now that most of the objectionable regulations have been overcome by the Committee's action in reducing the amount of Potassium Iodide to one hundredth of one per cent of one part to 10,000 parts of salt from two hundredths of one per cent or one part to 5,000 parts of salt. An official statement will be given to the salt producers to use 40 to 45 milligrams of potassium iodide to a pound of salt. This reduction brings the content of iodine back to the original recommendation of the Committee in 1924. Even though the present content of 1-5,000 seems rather high, no proven case of iodism has been presented during the sixteen years' use of iodized salt. The chiefs of both the Federal Food and the Drug divisions insist that no therapeutic statement shall appear on the Iodized Salt label. Your Committee feels that the Michigan State Medical Society's authorized statement of Goiter Prevention on the label for the last fifteen years has been the main contribution to the widespread use of Iodized Salt, especially outside of our own State and in the Philippine Islands where there has been no special efforts of education. A strenuous effort is being made to have such a statement returned to the label and your assistance is solicited together with that of Federal and National agencies interested in Preventive Medicine. As recommended last year it seems more necessary than ever to identify this Committee with a national organization having a scope not limited to Michigan boundaries. Consequently your Committee thought it best to interrogate the American Public Health Association for a place in its program. An informal conference was held in their executive offices June 12, 1940, with a representative national group, Dr. Haven Emerson and Dr. R. M. Atwater representing the American Public Health Association; Dr. Walter T. Harrison, Senior Surgeon of the National Public Health Institute, Representing Surgeon General Parran; Dr. Franklin C. Bing, Secretary of the A.M.A. Council on Food and Drugs; Dr. Theodore G. Klump, Chief of the Drug Division of the Federal Food and Drug Administration; Dr. Henry T. Scott of the University of Wisconsin Research Foundation; Dr. David Marine, Dr. Roy D. McClure, Dr. Harry A. Towsley, Mr. W. G. Wilcox, Chairman of the Salt Producer's Standardization Committee, and your Chairman. Dr. Haven Emerson acted as Chairman. It was deemed expedient to petition the Board of Trustees of the American Public Health Association for a place in their program before their October meeting in Detroit. Such a committee should have its headquarters in Michigan where 90% of the table salt produced is represented by executive offices in Detroit and members of the profession, vitally interested in what Iodized Salt has done for preventive medicine, should be members of such a committee.

Respectfully submitted,

Frederick B. Miner, M.D., *Chairman*
W. C. C. Cole, M.D.
Leon DeVel, M.D.
R. M. Kempton, M.D.
Edgar Martmer, M.D.
Frank VanSchoick, M.D.

ANNUAL REPORT OF MEMBERSHIP COMMITTEE, 1939-40

Contact has been maintained with the County Secretaries who have been urged to maintain lists of eligible non-members in their counties in order that their respective membership committees may be constantly reminded of their responsibilities.

A meeting of the Membership Committee of the M.S.M.S. was held November 29, 1939. A continuous program envisioning capture of the interests of young physicians without allowing this to lapse was laid out. In Detroit and Ann Arbor, the two large teaching centers, it is important that Internes and Residents be invited to actual membership in the County Societies without charge. Upon entrance into practice he must then be allowed a sliding scale of dues for the next few years, such as has been decided upon in one county. There should be close coöperation between the various County Societies in this matter to accommodate Internes and Residents moving out of Wayne or Washtenaw Counties so that there be no lapse of membership and that young physicians be enlisted in organized medicine early.

It should be the duty of organized medicine constantly to delineate advantages for its members which do not accrue to non-members. Those already existing were discussed and these must be constantly brought to the attention of eligible non-members: (a) limitation of hospital staff membership to county medical society members; (b) mal-practice insurance available only to the members; (c) no registration charge to members for Michigan Medical Service; (d) membership in special societies is contingent upon membership in County and State Medical Societies; (e) use of M.S.M.S. Journal for contributed articles is limited to members; (f) postgraduate opportunities and M.S.M.S. postgraduate certification; (g) for Internes, easy transfer to other County Medical Societies with the honor of having been a member of the County Medical Society.

The M.S.M.S. Membership Committee authorized the sending of eight hundred and fifty letters to eligible non-members in Wayne and Washtenaw Counties. Genesee, Kent, Kalamazoo and Calhoun Counties were asked to submit names of eligible non-members for the same purpose. The record of membership at the time this report is submitted is 4401. This compares well with the 4255 members on the same date in 1939.

Respectfully submitted,

Louis J. Bailey, M.D., *Chairman*
M. S. Ballard, M.D.
Wm. M. Brace, M.D.

ANNUAL REPORT OF COMMITTEE ON MENTAL HYGIENE, 1939-40

Dr. Henry A. Luce, Chairman of the Mental Hygiene Committee, attempted to organize a plan for the year prior to his severe illness, which struck him the first day of 1940. Following that, President Corbus called upon your obedient servant to act as Chairman, which duty has been carried out.

From past experience, it has been found impossible to get this Committee together for a meeting, so that the entire activities of the Committee have been carried on primarily by correspondence, and occasional personal conference with individual members, whenever and wherever they were possible.

Your Committee has coöperated with the Joint Committee on Health Education and with the Extension Service of the University of Michigan, being in readiness to furnish speakers for lay, as well as other groups, on request and demand. It has served in an advisory manner with the Committee on Preventive Medicine. It has served where it could, in association with the Michigan Society of Neurology and Psychiatry, and the Michigan Society for Mental Hygiene,

attending as many of the meetings and activities of these organizations as physically possible.

Early in the winter, an appeal came from the Chairman of the Radio Committee of the Michigan State Medical Society, for scripts to be used in radio publicity. A hurried appeal, and much correspondence, as well as telephone calls, with the various members of the Committee brought the return of only one script. As a result, as is not unusual in Committee work, the Chairman had the opportunity to prepare a number of scripts himself. The Radio Committee reports that three of these scripts were used on three consecutive weeks—the last week of February, and the first two weeks in March. It is claimed by the Radio Committee that these radio presentations were well accepted.

No other requests or demands were made upon the Committee in the coarse of the year, and no other special activities were carried on.

Respectfully submitted,

MARTIN H. HOFFMANN, M.D., *Chairman*
R. G. BRAIN, M.D.
R. M. KEMPTON, M.D.
R. W. WAGGONER, M.D.
O. R. YODER, M.D.

ANNUAL REPORT OF THE SYPHILIS CONTROL COMMITTEE, 1939-40

This Committee has held seven meetings of its entire membership and nine or ten meetings of subsidiary members or sub-committees. The Committee greatly regretted the inability of the preceding Chairman to continue in such capacity and feels that any accomplishments of the past year may be traced directly to the efforts of the preceding Committees.

The Syphilis Control Committee has coöperated with the Joint Committee on Health Education by furnishing a list of topics for presentation as well as speakers. The Committee has, with the approval of The Council, coöperated closely with the departments of health locally as well as with the State and the U. S. Public Health Services, and is happy to report that there exists a sincere spirit of coöperation between organized medicine and departments of health with regard to control of syphilis and gonorrhea.

In conjunction with the Michigan Junior Chamber of Commerce and the Michigan Department of Health, our Committee directed the placing of metal signs on the premises of licensees of the Michigan Liquor Control Commission. Letters have been sent by the Liquor Control Commission to all licensees requiring that these signs, which refer to the curability of syphilis, be placed in all lavatories. Further, the Michigan State Highway Department has similarly, at our request, placed such signs in their lavatories throughout the State. These signs advise the individual who may be afflicted with a venereal disease to consult his family physician at once.

The Committee has furnished many speakers throughout the State and has this year revised its entire set of slides for both medical and lay education. It is happy to furnish speakers or supply material for local speakers to any groups interested on any subject pertinent to its activities.

This Committee has been in close coöperation and has been represented at all meetings of the Preventive Medicine Committee and its recommendations have in all instances been submitted to the Preventive Medicine Committee prior to recommendation to The Council.

We greatly regretted the deletion of treatment schedules for syphilis and gonorrhea from the Michigan Medical Service program, understanding that this was unavoidable. We have directed much of our effort this year to the possible inclusion of these infectious diseases in treatment schedules. We believe that the subscriber who feels that he has paid for complete medical service, and finding this not to be the case, will tend to self-treat and that counter prescribing will increase even as it has been of late. The failure of acceptance of treatment schedules as far as these infections were concerned is due to the fact that the insurance commission will not allow them to be included because of lack of actuarial data. It was hoped that funds could be secured for the purpose of a twelve months' investigative research and that in this way such actuarial data might be furnished as to the cost of including these benefits in Michigan Medical Service.

The U. S. Public Health Service compiled careful estimates and were greatly coöperative, offering, in fact, to meet all administrative costs of such a program. We were, however, disappointed in three possible sources of underwriting for this program, and we feel that every effort should be made in the future to obtain the desired information, but in view of the existing emergency, funds will probably be difficult to obtain for such a purpose.

The Committee has submitted reports of the U. S. Public Health Service and its own data regarding this matter to the Executive Committee of The Council upon several occasions to be guided by their advice and judgment.

We have definitely felt that the patient is far better treated in the hands of the physician rather than the clinic which fact has been well demonstrated by one of our members, Doctor Harold Roehm, and was published in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, Ocober, 1939. We are happy to report that the Michigan Department of Health is in hearty accord with this view and thus we feel that the deletion of syphilis and gonorrhea from the Michigan Medical Service benefits tends to remove these patients from physician's offices and to detract from the quality and quantity of treatment which is accorded them.

At the request of the Michigan Department of Health recommendations as appended were drawn up with regard to standards for premarital examination. These have been submitted to The Council, criticized, revised and approved and have been mailed by the Michigan Department of Health to all physicians. It is regrettable that some instances of post marital infection have occurred with either syphilis or gonorrhea even though patients have been certified by physicians. Greater care is urged in making such examinations in order that these misfortunes may be minimized.

Your Committee has been in coöperation with the Child Welfare Committee regarding congenital lues and publicity concerning this matter. We wish to commend Dr. Miner's Committee for their activities from this viewpoint.

The question of the incidence of genito-infectious disease in the colored resort of Idlewild in Lake County was brought to the attention of the Syphilis Control Committee by President Corbus. Efforts have been made to obtain data on this situation and the Committee has individually offered its time and effort for this investigation. However, it was felt by the Executive Committee of The Council that requests should be received from the County Society concerned and while communication has been held with the Department of Health in that community no request for such studies has been received by your Committee.

Through the effort of another member of the Committee, Doctor Cyril Valade, the Michigan State Medical Society was represented at the annual meeting of the Michigan State Pharmaceutical Association to present the problem of counter prescribing and integration of effort for control of these infectious diseases. We are happy to report that the Michigan State Pharmaceutical Association has unanimously endorsed our effort and appointed one of its members to act in an advisory capacity with your future committees on

Syphilis Control and to coöperate in any manner possible.

The Michigan State Pharmaceutical Association also passed the following resolution which was unanimously adopted:

"Whereas, in our desire to coöperate with the State Medical Society

Be it resolved that the Michigan State Pharmaceutical Association urges all its members to assist the health and welfare forces in the community in the conquest of Syphilis and Gonorrhea by making the following seven principal contributions: *First,* Don't diagnose; *Second,* Don't prescribe; *Third,* Refer patients to the physician; *Fourth,* Don't sell patent remedies for self-treatment of venereal diseases; *Fifth,* Don't sell defective prophylactics; *Sixth,* Distribute informational literature obtainable from health departments concerning syphilis and gonorrhea and, *Seventh,* For the Michigan State Pharmaceutical Association to give valued help as a body of professional men."

The Committee urged the appointment of Syphilis Control Committees in the various component County Societies of the Michigan State Medical Society. Certain such Committees were already active. Additional Committees have been appointed during the year. In other County Societies, Preventive Medicine Committees are active which include genito-infectious diseases among the numerous other problems. The following counties have appointed Syphilis Control Committees: Bay, Calhoun, Genesee, Ingham, Jackson, Livingston, Northern Michigan, Oakland, Ontonagon, Saginaw, and Wexford-Kalkaska-Missaukee. The following County Societies which do not have Syphilis Control Committees, have active Preventive Medicine Committees: Barry, Kalamazoo, Kent, Lenawee, Menominee, St. Joseph, and Wayne.

The Committee wishes to thank you for the opportunity of serving and sincerely hopes that the spirit of its endeavor will be continued with your approval during the ensuing years.

Respectfully submitted

Robert S. Breakey, M.D., *Chairman*
Roy H. Holmes, M.D.
Harold R. Roehm, M.D.
Loren W. Shaffer, M.D.
Cyril K. Valade, M.D.
Arthur R. Woodburne, M.D.

ANNUAL REPORT OF COMMITTEE ON INDUSTRIAL HEALTH, 1939-40

The committee has had several meetings during the year and studied the industrial health problems of the state. A questionnaire has been sent out making a survey of the problems of industrial health in the state, and outlining the facilities which are available in the state to meet the industrial health needs. The committee has endeavored to inform the profession of the state through The Journal of the Michigan State Medical Society, through lectures in the postgraduate course of the State Society and through individual speakers at the various county medical society meetings. The need of proper instruction of the undergraduate student in industrial health has been pointed out to the medical schools and they have expressed their desire to coöperate in this regard. An outline has been prepared for a program of industrial health in those communities where the problem arises. Contacts have been made with the National Manufacturers Association and they have been assured of the coöperation of the profession of Michigan if that program is carried on on an ethical basis, recognizing the rights of the individual practitioner.

We have pointed out the importance of always keeping in mind in any program of industrial health the physician-patient relationship which exists between a patient and his family physician.

It is important to recognize that 10 per cent only of lost time in industry is due to accidents and occupational diseases incident to employment, 90 per cent of lost time in industry is caused by the ordinary illnesses of individuals. It is also important to recognize that 65 per cent of employees in industry are in plants employing five hundred or less. Keeping these facts in mind it is easy to see that the private physician has an important part to play in the problem of industrial health.

It is the opinion of your committee that the employer should at the most, act as a case-finding agency in the 90 per cent due to ordinary illnesses and should refer these cases to the family physician for care. The family physician must then recognize and meet this responsibility in the correction of such conditions. The medical profession must recognize that if the employer takes an interest in finding the cases he is going to have an interest in knowing that these conditions are corrected and has a right to expect the family physician to do his part in accomplishing the same in so far as is possible. It is important then that the medical profession shall take a serious interest in this problem both in the interest of the patient and himself.

The committee wishes to express its sincere appreciation to the State Health Department for its cooperation through Kenneth E. Markuson, M.D., its Director of Industrial Health.

Respectfully submitted,

Henry Cook, M.D., *Chairman*
Earl I. Carr, M.D.
R. H. Denham, M.D.
Grover C. Penberthy, M.D.
C. D. Selby, M.D.
George VanRhee, M.D.

ANNUAL REPORT OF THE COMMITTEE ON HEART AND DEGENERATIVE DISEASES, 1939-40

As the first step in the control of rheumatic heart disease the Committee has successfully petitioned the State Board of Health to have rheumatic fever made a reportable disease, making Michigan the third state to do so. This will enable the Committee to locate possible epidemic areas and decide how much future work will be necessary in children's heart disease.

It has been suggested that a registry of all rheumatic heart disease cases be organized in the state to be available to the local physicians, to facilitate care and follow-up of cases. This procedure may be combined with a similar method by the Tuberculosis Committee. Our committee is taking this suggestion under consideration.

The third step in this field of rheumatic disease in children is looking forward to provision for special hospitalization of such children much as is done in tuberculosis. They are to be considered afflicted children, and the treatment and control of the disease seems to be similar to that of tuberculosis.

This spring a postgraduate period in the State program was devoted to the "Arteriosclerotic Obese Patient." Each physician attending received instruction concerning the recognition of the degenerative process, the penalties of obesity, the dietary direction for the control of obesity (on mimeographed diet sheets).

The Committee has prepared a list of diagnoses of heart disease and an explanatory letter to all physicians of the state, giving the American Heart Association Classification of heart disease. This is being done in order to secure more accurate reporting of deaths from heart disease, to improve the quality of thinking about the subject of heart disease, aid in earlier and more accurate diagnoses, and uniformity of the Classification. A small appropriation will be necessary to mimeograph and mail these to the profession. This would be around $100.00. Hospital staffs are being urged to adopt the American Heart Association Classification.

"Diabetes" in the older age groups is frequently confused with the glycosuria of obesity, while in young people the use of insulin is not always well understood. The postgraduate committee of the Society has set up a short course in diabetes at the University Hospital under the direction of Dr. L. H. Newburgh, where for a small fee physicians may learn the correct management of these conditions. Ample opportunities are present in the City of Detroit for a review of this subject. Your Committee believes that the preventive aspects of diabetes is largely in the hands of the practicing physicians, and that continuation of their instruction will be necessary for a reduction in the death rate. At present the deaths per year attributed to diabetes in Michigan are about 1,200, but the Committee believes that some form of arterial disease may be responsible for the majority of these, and that glycosuria is an incident in the process.

Through the outlets of the Joint Committee on Health Education constant releases are being given on the general subject of obesity, but in many instances the physician himself seems still unaware of the morbid implication of overnutrition in elderly people. For this reason the Committee plans to continue more intensive efforts along educational lines to both the profession and the public.

With respect to essential hypertension, three developments in this field have appeared in recent years. (1) The upper limit of normal blood pressure is much lower than formerly supposed and is now considered 130 mm. systolic. (2) The disease is either psychogenic, a part of the obesity syndrome or secondary to nephritis or pyelonephritis in 90 per cent of the cases. (3) It is responsible for at least 20 per cent of the deaths in Michigan.

The Committee proposes to mail to each member of the State Society a pamphlet on Standardization of Blood Pressure Readings by the American Heart Association, and to continue postgraduate efforts in this field as rapidly as possible in an attempt to bridge the gap between available knowledge and that which is generally used in office and home practice for the control of the disease. Space in THE JOURNAL might be devoted to this subject.

The medical problems in care of the aged might well be considered a part of the interest of this committee. Every old person eventually comes under the care of a physician, many because of a degenerative process. The committee will be obliged in the future to explore the possibilities of assistance to the physician along educational lines in geriatrics.

In general, the participation of the State Medical Society in the preventive aspects of heart and degenerative diseases is a new one and without precedent. Your committee in its first year has noted some progress, but as may be expected, a long term program will be necessary both in defining policies to be followed and in providing methods for their consistent application.

Respectfully submitted,
HERMAN H. RIECKER, M.D., *Chairman*
M. S. CHAMBERS, M.D.
C. L. HESS, M.D.
JOHN LITTIG, M.D.
E. D. SPALDING, M.D.

ANNUAL REPORT OF THE COMMITTEE ON TUBERCULOSIS CONTROL, 1939-40

The Tuberculosis Control Committee has been regularly represented in the activities of the Preventive Medicine Committee of which it is a sub-committee.

The American College of Chest Physicians made inquiry during the year as to whether the President of the State Medical Society would consider appointing a Committee on Tuberculosis for the State Society and encourage each County Society to do the same. This was referred by Dr. Corbus to the Tuberculosis Control Committee and the recommendation made to the Preventive Medicine Committee by the Tuberculosis Committee was that consideration be given to forming Local Preventive Medicine Committees with special representation of the sub-headings in this field including tuberculosis.

A similar request came in from the Syphilis Control Committee and it was agreed that a canvass of the organization set-up of each County Medical Society be obtained through the Secretary of the State Medical Society so that suitable suggestions for organization in this field might be drawn up. This material is now being gathered.

The Committee has kept in active touch with the various organizations interested in tuberculosis such as the Michigan State Department of Health, the Michigan Tuberculosis Association, et cetera.

The State Department of Health contemplates becoming more active in the field of case finding in tuberculosis in the near future. Dr. Koppa has recently been appointed to direct the tuberculosis activities of the Department.

The Michigan Tuberculosis Association is furnishing the expense money for a speaker at the annual meeting of the Michigan State Medical Society and Dr. Henry Sweany of the Chicago Tuberculosis Sanatorium has been selected for this presentation.

Respectfully submitted,
BRUCE H. DOUGLAS, M.D., *Chairman*
JOHN BARNWELL, M.D.
L. J. SCHERMERHORN, M.D.
GEORGE C. STUCKY, M.D.
E. R. WITWER, M.D.

ANNUAL REPORT OF COMMITTEE ON POSTGRADUATE MEDICAL EDUCATION, 1939-40

The Committee on Postgraduate Medical Education met twice during the year. The first meeting was held on November 8, 1939. The following subjects were decided upon for the Extramural Course for April, 1940:

Gastric Diseases: (a) Modern Methods of Diagnosis.
(b) Modern Methods of Treatment.
Obscure Fever.
Diagnosis and Treatment of Common Anal and Rectal Diseases.
The Management of the Arteriosclerotic Obese Patient.
Relations of General Practice to Industrial Health.
Leukorrhea.
Multiple Sclerosis.

The subject of postgraduate courses under other auspices was discussed. The desirability of coöperation and collaboration between all agencies interested in postgraduate programs and the Postgraduate Committee of the State Medical Society was emphasized. It was also suggested that whenever possible subject matter, personnel and places of meeting be discussed with the Michigan State Medical Society Postgraduate Committee before publication.

It was suggested by the Committee that the Councilor in each district be the Chairman at the postgraduate meetings, and that he delegate the duties, if he sees fit, but that he be required to send to Dr. Bruce the names of the men so designated, if and when he delegates his work.

The registration in the postgraduate courses from July 1, 1939, to June 30, 1940, is as follows:

Extramural Courses	
Ann Arbor	155
Battle Creek-Kalamazoo	168
Flint	154
Grand Rapids	211
Lansing-Jackson	153
Mt. Clemens	68
Saginaw	158
Traverse City-Cadillac-Manistee-Petoskey	98
Alpena	14
	1,179

Intramural Courses—Ann Arbor and Detroit		
Allergy	27	
Applied Anatomy	94	
Diseases of the Blood	14	
Diseases of the Genito-Urinary Tract	11	
Diseases of the Heart	33	
Diseases of Metabolism	15	
Gynecology and Obstetrics	40	
Neuropsychiatry	34	
Nutritional and Endocrine Problems	16	
Ophthalmology and Otolaryngology	68	
Pediatrics	162	
Proctology	16	
Roentgenology	61	
Personal Courses	217	
Summer Session	24	
Laboratory Technic	5	
Internal Medicine (American College of Physicians)	33	
Courses in centers outside of Michigan	100	
		970
Total		2,149

There was a slight increase in the number attending the extramural courses and an increase of 117 in the intramural courses. It is apparent that the interest stimulated by the extramural courses has caused many Michigan physicians to seek more intensive instruction in the two intramural teaching centers. In evaluating the total numbers it is to be noted that there is a decrease in total attendance. This is accounted for by the fact that the courses in maternal welfare and pediatrics in collaboration with the Michigan Department of Health were not given this year.

On June 24, 1940, the second meeting of the Committee was held at the University Hospital. The subject of sending two teachers to each of the eight centers to discuss "Physical Examinations of Recruits," each teacher to spend one hour in the discussion of the essentials of a thorough physical examination, was discussed.

It was suggested in place of two teachers, a team of six physicians be sent to each center, each teacher a specialist in his line of work. The fields to be covered are psychiatry, orthopedics, ophthalmology, otolaryngology, internal medicine, and general surgery. It was suggested that each instructor give a thirty-minute talk. The additional expense of this plan would be between $500 and $600.

The Committee approved the following subjects for the extramural course in October, 1940:

The Newborn Period.
Management of Labor and the Use and Abuse of Analgesias in Obstetrics.
Hernia.
The Significance of Albuminuria.
The Psychodynamics of the Neuroses and a Case Demonstration of a form of Neurosis, illustrating the Office Management of such Cases.
The Diagnosis and Management of Coma.
Indications for and Significance of Laboratory Procedures for Office Practice.
Nasal Accessory Sinus Disease.

The Committee agreed that if an emergency develops or events make it advisable to change the program, the Chairman should be given authority to make such substitutions and changes in the program as his judgment directs.

The Committee believes the newspaper publicity about the program should be used or not in the various districts of the State at the discretion of the County Medical Societies.

The subject of the presentation of certificates to those physicians who had completed four years of postgraduate work was considered. Two plans were suggested: First, to give out the certificates at the most important meeting of the Annual Session of the Michigan State Medical Society and to have a prominent speaker discuss postgraduate education. Second, to have the Certificates mailed to the physicians to be recognized and to list the names of those receiving certificates in the State Medical Society JOURNAL. It was the opinion of the Committee that the second method should be followed at the annual meeting in September.

The Committee recommended that the dates of all medical meetings throughout the State be cleared through one central office, so that conflicts with the postgraduate program of the State Society might be avoided.

Dean Norris advised the Committee that Wayne University is willing to coöperate with the other groups in carrying on the program of postgraduate medical education and would like to carry its share of the expenses, but for the present the fees obtained from the intramural courses only would be available.

(Note: In the past, the fees received from the intramural courses in Detroit have been turned back to the teachers in charge of the courses.)

The Committee recommended that the President of the State Medical Society be requested to appoint Dr. Ralph H. Pino, head of the Wayne County Continuation School of Medicine, and Dr. Edgar H. Norris, Dean of the Wayne University College of Medicine, members of the Advisory Committee on Postgraduate Education (the latter replacing Dean Allen).

Respectfully submitted,
J. D. BRUCE, M.D., *Chairman*
A. J. BAKER, M.D.
A. P. BIDDLE, M.D.
FRED H. COLE, M.D.
H. H. CUMMINGS, M.D.
DOUGLAS DONALD, M.D.
W. B. FILLINGER, M.D.
C. L. HESS, M.D.
HENRY A. LUCE, M.D.
W. H. MARSHALL, M.D.
J. J. WALCH, M.D.

ANNUAL REPORT OF THE M.S.M.S. DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION, 1940

The ninety-first annual session of the American Medical Association was held in New York City from June 10 to 14, 1940.

The House of Delegates met in the Jade Room of the Waldorf Astoria on Monday morning at 10 A. M. All regularly elected delegates from Michigan were present and attended all sessions of the House. In addition to the regular delegates, Michigan was well represented at their meeting by the presence of President Burton R. Corbus; President-elect Paul R. Urmston; Secretary L. Fernald Foster; and Executive Secretary Wm. J. Burns.

After the official roll call, the first order of business was the election of members of the society to receive the Distinguished Service award. Dr. Arthur W. Booth, chairman of the Board of Trustees submitted the report of the committees on Distinguished Service awards. Three names were presented: Dr. James Ewing of New York, Dr. Ludvig Hektoen of Chicago, and Dr. Chevalier Jackson of Philadelphia. After several ballots were cast, Dr. Jackson was declared the choice of the House. The award was conferred at the first general session on Tuesday evening.

The addresses of the Speaker of the House, Dr. H. H. Shoulders, the president, Dr. Rock Sleyster, and president-elect, Dr. Nathan B. Van Etten, were all very inspiring and received much favorable comment.

Following the address by the speaker, a roll call of the members who had passed to the Great Beyond since the May, 1939, meeting, was read. In this list appeared the name of Dr. C. B. Wright of Minneapolis, a member of the Board of Trustees, who had endeared himself to all the Michigan delegates.

The speaker announced the personnel of the reference committees and again Michigan was honored when

Dr. L. G. Christian was made a member of Committee on Legislation and Public Relations, and Dr. Frank E. Reeder was made Sergeant at Arms.

The Secretary presented Dr. T. C. Routley, official representative of the Canadian Medical Society, who in a few well chosen words brought greetings from the Canadian Medical Society. Speaking of the entrance of Canada into the war, Dr. Routley stated that their society notified their Government that they were ready to assist and within three days, 90% of the medical profession of Canada had been mobilized and all of these 90% volunteered to go anywhere or do anything that might be required.

Now, because of the European crises and the fact that our country may be drawn into the conflict, it was very evident that the Medical profession of these United States must be prepared for any National emergency and for this purpose, Dr. Booth, chairman of the Board of Trustees, requested the Secretary, Olin West, to read Resolutions Authorizing Organization of a Committee on Medical Preparedness.

In this connection, Dr. George C. Dunham, United States Army, presented a tentative plan for the procurement of professional personnel for the Medical Corps of the Army in the event of a national emergency. The resolutions and the plan presented by Dr. Dunham were referred to the reference committee on Executive session.

The House met in Executive session Tuesday afternoon and Dr. Edward R. Cunniffe, the chairman, presented his committee report. On motion of Dr. Cunniffe and duly seconded the report was carried. Subjects of the report follow:

1. Resolution Authorizing Organization of a committee on Medical Preparedness.
2. Procurement of Professional Personnel for Medical Corps of the army in the event of a National Emergency.
3. Resolution on Military Activities presented by Dr. Geo. R. Dillinger of Indiana.
4. Resolution on Protection of Physicians who might be called to Military Service.

Under the heading of new business, many resolutions were presented and to enumerate all of these would be a repetition of the reports as found in the *Journal of the American Medical Association* under the dates of June 22 and 29, 1940.

Of interest to our State Society are the resolutions presented by the Michigan Delegates. The resolution on Blood Typing for Transfusion presented by Dr. T. K. Gruber was referred to the committee on Miscellaneous Business. The Reference Committee reported as follows: Your Reference Committee recognizes the value of blood transfusion and also of having donors available for emergencies. It, however, believes that both doctors and the public are already aware of the importance of the life saving procedure and that adequate measures have, in most communities, already been taken. It is unsympathetic to the idea expressed in the resolution that blood typing and classification may be linked with the present-day project of blood testing for syphilis. It regards this resolution, as introduced by Dr. T. K. Gruber in behalf of the Michigan State Medical Society, as unnecessary at the present time and so recommends its disapproval.

The resolution on Medical Service Plans presented by Dr. L. G. Christian of Michigan asked that the House of Delegates of the American Medical Association request the Board of Trustees to direct the Bureau of Medical Economics and the Committee on Medical Care to take appropriate steps toward the coordination of medical service plans and to arrange for the collection of information and experience that may be useful in developing and maintaining sound practice. After their deliberations, the committee reported favorably to the House with reference to this resolution and the same was carried in the House.

Dr. George Edward Follansbee, chairman of the Judicial Council, reported on resolution referred to the Committee on Amending the Constitution and By-laws with reference to the principles of Medical Ethics pertaining to Patents and Perquisites, and stated that after careful consideration and thorough study, the Council was prepared to admit its failure to find a solution.

With reference to membership in the American Medical Association, the Judicial Council reported that inasmuch as there are at least eight classifications: namely, regular, active, associate, affiliated, honorary, retired, interne, and non-resident, that it could only suggest that the local County and State Society endeavor to bring about uniformity in their own organization. Further stated, that Doctors of Medicine licensed to practice medicine and whose licenses are registered in the County and State in which they make application be accepted for full membership in the American Medical Association.

A new scientific section was established by the change of a By-law. The new section added is one entitled "Anesthesiology." This makes a total of seventeen sections.

Dr. Arthur W. Booth, chairman of the Board of Trustees, reported on the indictment of the Association as follows: The Supreme Court of the United States has denied the petition of the Association for a writ of certiorari; hence the Association must now stand trial in the U. S. District Court for the District of Columbia. Word has just been received to the effect that representatives of the Association and the members of the administrative personnel who were indicted by an additional grand jury impaneled at the request of the Department of Justice of the United States must be in Washington on Friday morning, June 14, to make an appearance before the court. The Board of Trustees has authorized the secretary and General Manager to enter a plea of not guilty for the Association.

Election of officers for the ensuing year are as follows: Dr. Frank H. Lahey of Boston was elected President-elect. Dr. Parke G. Smith of Cincinnati was elected Vice-president. Dr. Olin West was re-elected Secretary. Dr. Herman L. Kretschmer was re-elected Treasurer. Dr. Harrison H. Shoulders was re-elected Speaker of the House. Dr. R. W. Fouts was re-elected Vice-Speaker. Dr. William F. Braasch of Rochester, Minn., was elected a member of the Board of Trustees to fill the unexpired term of Dr. Charles B. Wright.

At the request of the Michigan Delegation, Dr. George C. Hafford of Albion, Michigan, was approved for Affiliate Fellowship, by the Council on Scientific Assembly.

San Francisco was chosen as the place of holding the 1943 meeting.

The meeting at New York was very successful. The sessions of the House of Delegates were well attended. Michigan's attendance was 100 per cent at all meetings.

The total registration at this meeting was 12,864.

As time and space do not permit of a more detailed report, we most heartily urge that all members of our society refer to the *Journal of the American Medical Association* under date of June 22 and 29, 1940.

HENRY A. LUCE, M.D., *Chairman*
T. K. GRUBER, M.D.
FRANK E. REEDER, M.D.
CLAUDE R. KEYPORT, M.D.
L. G. CHRISTIAN, M.D.

ANNUAL REPORT OF M.S.M.S. REPRESSENTATIVES TO THE MICHIGAN JOINT COMMITTEE ON HEALTH EDUCATION

There has been no occasion to call a meeting of the Representatives to the Joint Committee on Health Education during the past year. Your chairman has met, from time to time, with the Executive Committee of the Joint Committee. Dr. Henry A. Luce, one of our representatives, is on this committee.

Your chairman has also met with Dr. B. R. Corbus and members of the committee in a joint conference with the Department of Public Instruction to discuss a coördinated educational program in the schools, and more specifically a plan for bringing health subjects before each of the County Teachers' Conventions.

The annual meeting of the Joint Committee has been postponed until this fall.

With a curtailed income the Committee has been compelled to limit its activities. Nevertheless all traditional activities have been carried on very successfully. About the same number of health lectures were assigned as in previous years. The final report has not come in but it will be approximately one hundred and fifty lectures. The per diem and travel expense for these lectures is approximately eighteen hundred dollars.

The next most expensive activity is the publication of the Health Column in the Detroit News and allied papers, the dissemination of this material to the Health Units of the State, and the re-publication of material from these articles in out-lying papers. The *Detroit News* shares in this expense. From the Joint Committee funds something over fifteen hundred dollars was expended. It is believed by the Joint Committee and your chairman that this is a very worthwhile activity.

A considerable charge on the budget of the Joint Committee is the clerical work necessitated by these various activities. The contribution of the University of Michigan to this work is the part time service of the Director of the Extension Division of the University of Michigan, and office space within this Division for this work. Although a part time clerk is on duty in this office the Joint Committee is indebted to Dr. C. A. Fisher and other assistants for added hours of work.

The Extension Division furnishes the machinery for the distribution of radio speeches and the Speakers' Bureau. In the early part of the year Dr. Corbus, Chairman of the Joint Committee, called a meeting of the chairmen of the different scientific committees of the State Society, and the responsibility was placed on these committees to supply speakers. The excellent radio material was furnished by Dr. J. Duane Miller's capable committee.

Although the budget was limited, the Joint Committee was able this year to purchase some five hundred dollars worth of films, both silent and sound, to supplement the speakers subjects. In addition the Joint Committee contributed one hundred dollars to the M.S.M.S. Cancer Committee for the repair of films which some years ago were furnished to that committee.

The various bulletins, produced by the Joint Committee for the instruction of teachers on health matters in schools, are still in demand. During this year the second five thousand of the bulletin "Experiences in Healthful Living, for Teachers," produced and financed by the Joint Committee, has been largely distributed; a demand for earlier bulletins continues.

The Joint Committee is a unique institution. There is no associated group like it in the United States. Of special value is the intimate association with the State Departments of Public Instruction and of Public Health.

It is proposed to make an exhibit at the time that the American Public Health Association meets in Detroit this fall.

The Michigan State Medical Society is proud that it has initiated and sponsored the Joint Committee, an independent unit of formal organization composed of twenty-four associated groups, which has for its only objective the betterment of the health and welfare of the citizens of the state of Michigan and whose dominant purpose is to disseminate factual health information to the laity.

J. B. Jackson, M.D., *Chairman*
C. T. Ekelund, M.D.
L. Fernald Foster, M.D.
Henry A. Luce, M.D.
William J. Stapleton, Jr., M.D.

HOUSE OF DELEGATES OF THE MICHIGAN STATE MEDICAL SOCIETY, 1940

O. D. Stryker, M.D., Fremont, *Speaker*
J. J. O'Meara, M.D., Jackson, *Vice Speaker*
L. Fernald Foster, M.D., Bay City, *Secretary*

Names of Alternates appear in italics

1. **Allegan**
   O. H. Stuch, M.D., Otsego
   O. D. Hudnutt, M.D., Plainwell
2. **Alpena-Alcona-Presque Isle**
   W. E. Nesbitt, M.D., Alpena
   A. R. Miller, M.D., Harrisville
3. **Barry**
   R. B. Harkness, M.D., Hastings
   R. G. Finnie, M.D., Hastings
4. **Bay-Arenac-Iosco-Gladwin**
   C. L. Hess, M.D., 208 Davidson Bldg., Bay City
   V. H. Dumond, M.D., Shearer Bldg., Bay City
   Fred Drummond, M.D., Kawkawli
   J. C. Grosjean, M.D., 8th and Sheridan Sts., Bay City
5. **Berrien**
   Wm. Ellet, M.D., Benton Harbor
   Fred Henderson, M.D., Niles
6. **Branch**
   R. L. Wade, M.D., Coldwater
   Samuel Schultz, M.D., Coldwater
7. **Calhoun**
   A. T. Hafford, M.D., Albion
   Harvey Hansen, M.D., 1102 Central Tower, Battle Creek
   A. A. Humphrey, M.D., Leila Hosp., Battle Creek
   Geo. W. Slagle, M.D., 1506 Central Tower, Battle Creek
8. **Cass**
   S. L. Loupee, M.D., Dowagiac
   K. C. Pierce, M.D., Dowagiac
9. **Chippewa-Mackinac**
   B. T. Montgomery, M.D., Sault Ste. Marie
   Geo. Conrad, M.D., Sault Ste. Marie
10. **Clinton**
    G. H. Frace, M.D., St. Johns
    (No alternate named.)
11. **Delta-Schoolcraft**
    W. A. Lemire, M.D., Escanaba
    Otto S. Hult, M.D., Escanaba
12. **Dickinson-Iron**
    W. H. Alexander, M.D., Iron Mountain
    E. B. Andersen, M.D., Iron Mountain

13. **Eaton**
Paul Engle, M.D., Olivet
F. W. Sassaman, M.D., Charlotte

14. **Genesee**
Frank E. Reeder, M.D., Genesee Bank Building, Flint
Geo. J. Curry, M.D., Genesee Bank Building, Flint
Donald R. Brasie, M.D., 907 Citizens Bank Bldg., Flint
Henry Cook, M.D., 400 Sherman Bldg., Flint
Don Wright, M.D., 403 W. Court Street, Flint
A. Dale Kirk, M.D., 300 East First Street, Flint
Robert Scott, M.D., 1215 Detroit Street, Flint

15. **Gogebic**
W. E. Tew, M.D., Bessemer
D. C. Eisele, M.D., Ironwood

16. **Grand Traverse-Leelanau-Benzie**
I. H. Zielke, M.D., Traverse City
C. E. Lemen, M.D., Traverse City

17. **Gratiot-Isabella-Clare**
M. G. Becker, M.D., Edmore
W. E. Barstow, M.D., St. Louis

18. **Hillsdale**
Luther W. Day, M.D., Jonesville
O. G. McFarland, M.D., North Adams

19. **Houghton-Baraga-Keweenaw**
J. H. Kirton, M.D., Calumet
Alfred LaBine, M.D., Houghton

20. **Huron-Sanilac**
W. B. Holdship, M.D., Ubly
C. W. Oakes, M.D., Harbor Beach

21. **Ingham**
C. F. DeVries, M.D., 320 Townsend, Lansing
R. S. Breakey, M.D., City Nat. Bldg., Lansing
T. I. Bauer, M.D., 301 Seymour, Lansing
W. H. Welch, M.D., 428 W. Michigan, Lansing
O. H. Bruegel, M.D., Abbott Bldg., East Lansing
E. H. Foust, M.D., 428 W. Allegan, Lansing

22. **Ionia-Montcalm**
W. L. Bird, M.D., Greenville
C. H. Peabody, M.D., Lake Odessa

23. **Jackson**
Philip A. Riley, M.D., 500 S. Jackson St., Jackson
J. J. O'Meara, M.D., 608 Peoples Nat. Bank Bldg., Jackson
H. A. Brown, M.D., 701 Reynolds Bldg., Jackson
C. S. Clarke, M. D., 605 Dwight Block, Jackson

24. **Kalamazoo**
F. M. Doyle, M.D., American Nat. Bank Bldg., Kalamazoo
I. W. Brown, M.D., City Hall, Kalamazoo
L. W. Gerstner, M.D., 420 John Street, Kalamazoo
Keith Bennett, M.D., Amer. Nat. Bank Bldg., Kalamazoo

25. **Kent**
A. V. Wenger, M.D., 302 Loraine Bldg., Grand Rapids
C. F. Snapp, M.D., Medical Arts Bldg., Grand Rapids
A. B. Smith, M.D., Metz Bldg., Grand Rapids
Geo. Southwick, M.D., 55 Sheldon Avenue, SE, Grand Rapids
Paul Kniskern, M.D., Medical Arts Bldg., Grand Rapids
Wm. Bettison, M.D., Medical Arts Bldg., Grand Rapids
A. J. Baker, M.D., Ashton Bldg., Grand Rapids
Leon DeVel, M.D., Metz Bldg., Grand Rapids
J. D. Miller, M.D., 612 Medical Arts Bldg., Grand Rapids
Wm. J. Butler, M.D., Medical Arts Bldg., Grand Rapids

26. **Lapeer**
D. J. O'Brien, M.D., Lapeer
H. M. Best., M.D., Lapeer

27. **Lenawee**
A. W. Chase, M.D., Adrian
Bernard Patmos, M.D., Adrian

28. **Livingston**
D. C. Stephens, M.D., Howell
D. A. Cameron, M.D., Brighton

29. **Luce**
Henry E. Perry, M.D., Newberry
R. E. Spinks, M.D., Newberry

30. **Macomb**
D. Bruce Wiley, M.D., Utica
A. B. Bower, M.D., Armada

31. **Manistee**
E. A. Oakes, M.D., Manistee
(No alternate named.)

32. **Marquette-Alger**
V. Vandeventer, M.D., Ishpeming
R. A. Burke, M.D., Palmer

33. **Mason**
Robert Farrier, M.D., Ludington
(No alternate named)

34. **Mecosta-Osceola**
G. H. Yeo, M.D., Big Rapids
P. B. Kilmer, M.D., Reed City

35. **Menominee**
H. T. Sethney, M.D., Menominee
S. C. Mason, M.D., Menominee

36. **Midland**
Ed. H. Meisel, M.D., Midland
(No alternate named.)

37. **Monroe**
D. C. Denman, M.D., Monroe
J. H. McMillin, M.D., Monroe

38. **Muskegon**
E. O. Foss, M.D., 502 Muskegon Bldg., Muskegon
E. N. D'Alcorn, M.D., Michigan Theatre Building, Muskegon
L. E. Holly, M.D., 876 North Second St., Muskegon
S. W. Hartwell, M.D., 706 Hackley Union Bk. Bldg., Muskegon

39. **Newaygo**
O. D. Stryker, M.D., Fremont
W. H. Barnum, M.D., Fremont

40. **Northern Michigan**
Wm. S. Conway, M.D., Petoskey
Walter E. Larson, M.D., Levering

41. **Oakland**
Richard Olsen, M.D., St. Joseph Mercy Hospital, Pontiac
C. T. Ekelund, M.D., Riker Bldg., Pontiac
Geo. A. Sherman, M.D., Oakland T. B. Sanatorium, Pontiac
Harold Roehm, M.D., Wabeek Bldg., Birmingham
A. D. Riker, M.D., Riker Bldg., Pontiac
Robert Baker, M.D., People's Bank Bldg., Pontiac

42. Oceana
Merle G. Wood, M.D., Hart
Wm. Heard, M.D., Pentwater

43. O.M.C.O.R.O.
C. R. Keyport, M.D., Grayling
C. G. Clippert, M.D., Grayling

44. Ontonagon
E. J. Evans, M.D., Ontonagon
S. H. Rubinfield, Ontonagon

45. Ottawa
A. E. Stickley, M.D., Coopersville
R. H. Nichols, M.D., Holland

46. Saginaw
C. E. Toshach, M.D., 333 S. Jefferson, Saginaw
S. A. Sheldon, M.D., 124 S. Jefferson, Saginaw
L. C. Harvie, M.D., 405 Weichmann Bldg., Saginaw
F. O. Novy, M.D., 420 S. Jefferson, Saginaw

47. Shiawassee
A. L. Arnold, Jr., M.D., Owosso
I. W. Greene, M.D., Owosso

48. St. Clair
A. L. Callery, M.D., Port Huron
(No alternate named.)

49. St. Joseph
John W. Rice, M.D., Sturgis
R. A. Springer, M.D., Centerville

50. Tuscola
T. E. Hoffman, M.D., Vassar
E. C. Swanson, M.D., Vassar

51. Van Buren
W. R. Young, M.D., Lawton
Edwin Terwilliger, M.D., S. Haven

52. Washtenaw
J. A. Wessinger, M.D., 339 E. Washington, Ann Arbor
Dean W. Myers, M.D., 1917 Washtenaw, Ann Arbor
L. J. Johnson, M.D., 225 E. Liberty, Ann Arbor
C. L. Washburn, M.D., St. Joseph Mercy Hospital, Ann Arbor
L. E. Knoll, M.D., 227 E. Liberty, Ann Arbor
R. W. Teed, M.D., 410 Highland Road, Ann Arbor

53. Wayne
Ralph H. Pino, M.D., 1001 David Whitney Bldg.
R. L. Novy, M.D., 662 Maccabees Bldg.
E. D. Spalding, M.D., 662 Maccabees Bldg.
J. M. Robb, M.D., 641 David Whitney Bldg.
T. K. Gruber, M.D., Eloise Hospital, Eloise
W. D. Barrett, M.D., 311 David Whitney Bldg.
H. F. Dibble, M.D., 1317 David Whitney Bldg.
A. E. Catherwood, M.D., 1337 David Whitney Bldg.
Wm. J. Stapleton, Jr., M.D., 641 David Whitney Bldg.
R. M. McKean, M.D., 1515 David Whitney Bldg.
Henry A. Luce, M.D., 629 David Whitney Bldg.
R. C. Jamieson, M.D., 1309 David Whitney Bldg.
Chas. S. Kennedy, M.D., 10 Peterboro
G. C. Penberthy, M.D., 1515 David Whitney Bldg.
L. J. Hirschman, M.D., 7815 E. Jefferson Ave.
W. B. Cooksey, M.D., 62 W. Kirby
G. S. Bates, M.D., 1563 David Whitney Bldg.
C. E. Umphrey, M.D., 13331 Livernois
C. E. Dutchess, M.D., c/o Parke, Davis & Co.
H. W. Plaggemeyer, M.D., 1701 David Whitney
C. E. Simpson, M.D., 1210 Kales Bldg.
Allan McDonald, M.D., 1340 Maccabees Bldg.
H. J. Kullman, M.D., 1515 David Whitney Bldg.
P. L. Ledwidge, M.D., 1838 David Whitney Bldg.
C. K. Hasley, M.D., 1429 David Whitney Bldg.
L. W. Hull, M.D., 1701 David Whitney Bldg.
A. F. Jennings, M.D., 7815 E. Jefferson
G. L. McClellan, M.D., 2501 W. Grand Blvd.
C. F. Vale, M.D., 1306 David Whitney Bldg.
L. T. Henderson, M.D., 13038 E. Jefferson
Wm. S. Reveno, M.D., 951 Fisher Bldg.
C. K. Valade, M.D., 1604 Eaton Tower
S. W. Insley, M.D., 1302 Maccabees Bldg.
C. F. Brunk, M.D., 7815 E. Jefferson
R. V. Walker, M.D., 1320 David Whitney
H. L. Morris, M.D., 866 Fisher Bldg.

J. A. Kasper, M.D., Herman Kiefer Hospital
E. R. Witwer, M.D., Harper Hospital
R. C. Connelly, M.D., 1709 David Whitney Bldg.
R. A. C. Wollenberg, M.D., 938 David Whitney Bldg.
H. L. Clark, M.D., 634 Maccabees Bldg.
Wm. P. Woodworth, M.D., 2501 W. Grand Blvd.
D. I. Sugar, M.D., 17 Brady
M. H. Hoffmann, M.D., Eloise Hospital, Eloise
H. B. Fenech, M.D., 10 Peterboro
H. W. Peirce, M.D., 1652 David Whitney Bldg.
S. E. Gould, M.D., Eloise Hospital, Eloise
F. W. Hartman, M.D., Henry Ford Hospital
B. H. Priborsky, M.D., 742 Maccabees Bldg.
F. C. Witter, M.D., 2905 W. Grand Blvd.
Meshel Rice, M.D., 2501 W. Grand Blvd.
W. B. Harm, M.D., 5884 W. Vernor Highway
Arch Walls, M.D., 12065 Wyoming
J. B. Rieger, M.D., 1265 David Whitney Bldg.
V. N. Butler, M.D., 559 Fisher Bldg.
L. W. Shaffer, M.D., 1368 Yorkshire, Grosse Pointe Park
C. L. Candler, M.D., 2006 Eaton Tower
L. O. Geib, M.D., 3528 Van Dyke
C. J. Jentgen, M.D., 2501 W. Grand Blvd.
L. J. Gariepy, M.D., 16401 Grand River
E. H. Lorentzen, M.D., 11702 Grand River
J. H. Law, M.D., Grace Hospital
C. S. Ratigan, M.D., 22340 Michigan, Dearborn
Wm. N. Braley, M.D., 12897 Woodward
E. D. King, M.D., 5455 W. Vernor Highway
A. V. Forrester, M.D., 16491 Woodward, Highland Park
E. W. Fitzgerald, M.D., 932 Maccabees Bldg.
W. A. Chipman, M.D., 14920 Grand River
George A. Troester, M.D., 16131 Mack
Wm. Hamilton, M.D., 13836 Woodward, Highland Park
H. E. Bagley, M.D., 12922 W. Warren, E. Dearborn
G. L. Coan, M.D., 114 Maple St., Wyandotte

54. Wexford-Kalkaska-Missaukee
W. Joe Smith, M.D., Cadillac
John F. Gruber, M.D., Cadillac

Interesting Results

FOLLOWING are several of the results gained in the operation of a professionally administered medical service plan:

1. Within three months, twenty groups of subscribers totaling more than 63,000 persons have been enrolled.
2. Services have been rendered to 1,400 subscribers by 434 doctors of medicine.
3. Over $50,000 has been paid to doctors for services rendered to subscribers.
4. Checks have been mailed by Michigan Medical Service to approximately one out of every fifteen doctors in the state.
5. The full Schedule of Benefits, equivalent to prevailing charges, was paid for all services.
6. More than 3,100 doctors of medicine—approximately three-fourths of the total possible number—have registered with Michigan Medical Service indicating their willingness to render services for subscribers of the medical plan.
7. During March, April, and May the earned income from subscribers was sufficient to pay doctors for services rendered and to meet administration expenses, leaving a small net balance. No advances from the Michigan State Medical Society have been received since February, 1940.

The foregoing results tend to show the possibilities under a properly organized plan supported by the medical profession.

Coöperation of Doctors

The Board of Directors of Michigan Medical Service makes a special request of all doctors to complete promptly the necessary reports for rendering services to subscribers. Paper work for the physician in connection with rendering services to subscribers of Michigan Medical Service has been kept to the very minimum. There are only two brief reports for the doctor:

1. *Initial Service Report,* which is the statement sent by the doctor notifying Michigan Medical Service that a subscriber has requested services. (This Report makes it possible to verify that the patient is in good standing and eligible for his services. This is a service to the doctor.)

The Report should be mailed directly to the Medical Advisory Board of Michigan Medical Service, 2002 Washington Blvd. Bldg., Detroit.

If no notification is received by the doctor by return mail, the subscriber-patient is in good standing and eligible for the services requested.

Notification will be sent only to inform the

MICHIGAN MEDICAL SERVICE REGISTRATION HONOR ROLL

Members of our County Medical Societies are recognizing the great social value of Michigan Medical Service, and have indicated their belief and their desire to participate by a high percentage of registration with Michigan Medical Service.

Below is listed the "Honor Roll," those societies with a registration (as of July 11, 1940) of 75 per cent or more of their membership:

100 per cent

Barry
Mason

90 to 99 per cent

Manistee

80 to 89 per cent

Bay-Arenac-Iosco-Gladwin
Calhoun
Chippewa-Mackinac
Clinton
Delta-Schoolcraft
Dickinson-Iron
Gratiot-Isabella-Clare
Hillsdale
Ingham
Kent
Lenawee
Mecosta-Osceola
Menominee
Midland
Newago
Oceana
Ontonagon
Saginaw
St. Joseph
Tuscola

75 to 79 per cent

Allegan
Eaton
Monroe
Northern Michigan
O.M.C.O.R.O.
Ottawa

Additional registrations being received daily will soon place other societies on the Honor Roll. An Application for Registration may be found on page 597 for the convenience of physicians. Merely remove the blank, sign and return it to 2014 Olds Tower, Lansing.

physician that the subscriber is no longer a member or for some reason is not entitled to benefits under Michigan Medical Service for the services requested.

2. *Monthly Service Report,* which is the itemized bill for services rendered. This Report is sent at the completion of services for a patient, but **not later than the end of each month,** to the Medical Advisory Board for approval and payment by Michigan Medical Service. **Send in your bill the last day of every month even though the case is not completed.**

Checks are mailed to doctors within thirty days. Prompt payments can be made only when the doctor sends his reports promptly with the necessary information complete.

Additional copies of these forms can be obtained from the county society secretaries.

More general understanding of the provisions of the medical plan through actual contact in providing services for subscribers will lead to constantly improving administration.

Enrollment

As of June 30, 65,062 subscribers have been enrolled in Michigan Medical Service—63,646 in the Surgical Benefit Plan and 1,416 in the Medical Service Plan.

The total enrollment by months is as follows:

Month	Subscribers	Increase	Per Cent Increase
March	60,118	—	—
April	61,709	1,591	2.6%
May	63,135	1,426	2.3%
June	65,062	1,927	2.9%

Michigan Medical Service has the distinction of having the largest enrollment of any voluntary medical service plan in the United States or in the entire world. This is real evidence that the people of Michigan desire to participate in a non-profit non-political pre-payment medical service plan, directed by doctors of medicine.

APPLICATION FOR REGISTRATION with MICHIGAN MEDICAL SERVICE

....., 1940

To Michigan Medical Service:

I am a doctor of medicine, duly licensed to practice in the State of Michigan, willing to provide medical services under the medical service plan of Michigan Medical Service, a non-profit corporation, and I hereby apply for registration thereunder.

I agree to abide by the Articles of Incorporation, By-Laws, and the Regulations of Michigan Medical Service, and amendments thereto, in matters relating to the Michigan Medical Service plan, and the same are made a part hereof.

I agree to furnish reports of services rendered to patients under the medical service plan of Michigan Medical Service, to accept compensation for such services in accordance with the regulations of Michigan Medical Service, and, unless permitted by these regulations, to make no direct charge to such patients for services rendered under the Michigan Medical Service plan.

No parties other than myself or Michigan Medical Service shall have any right as the result of any agreement between myself and Michigan Medical Service.

It is understood that I may at any time discontinue participation in the Michigan Medical Service plan by giving fifteen days' notice in writing to Michigan Medical Service.

.....M.D.

My office address to which all communications from Michigan Medical Service are to be sent is:

....

(Please print or typewrite name) (Street and number) (City or town)

Physicians who are NOT members of the Michigan State Medical Society please enclose $5.00, which is the per capita payment made by the Michigan State Medical Society on behalf of members.

If you have not already signed your Application for Registration with Michigan Medical Service, detach this copy, sign, and return to Michigan Medical Service, 2014 Olds Tower, Lansing, Michigan.

YOU AND YOUR BUSINESS

THE DIAMOND ANNIVERSARY

The 75th Annual Meeting of the Michigan State Medical Society will be held in Detroit September 25, 26, 27, 1940. Besides the 62 stars on the General Assembly and Section Programs, the meeting will feature the Presidents' Banquet on Wednesday evening, and a Smoker on Thursday evening. Section luncheons and fraternity banquets crowd each day's program. No member or guest will lack for something to do, every hour. The Woman's Auxiliary meets with a splendid program. The County Secretaries' Conference will be held Wednesday noon. A symposium on the business side of medicine will be given for office assistants Tuesday from 12:15 to 4:30 p.m. The Exhibit of 82 spaces will cover the entire fourth floor of the Hotel (except the Grand Ballroom).

Bring your membership card, to facilitate registration

MOBILIZATION

President Burton R. Corbus has been appointed by the Michigan State Medical Society to serve as the state's representative on the Committee on Medical Preparedness of the American Medical Association. Doctor Corbus is well qualified for this position, having gone through the mobilization and the complete experiences of the First World War.

Material is being sent to all physicians in the United States to obtain information essential to the Committee on Medical Preparedness of the A.M.A. and to the Surgeon Generals of the Army, Navy and Public Health Service. Members are urged to execute these blanks and return them promptly to the American Medical Association.

MEDICAL WELFARE IN MICHIGAN

The medical relief questionnaire of the Michigan State Medical Society was answered by 73 of the 83 counties in the State. Results show that most county medical societies have given this important subject the attention it deserves, and that the welfare law of 1939 is being complied with, except in a few instances.

Free choice of physician as provided in Act 280 of the Public Acts of 1939 is found in 62 of the 73 reporting counties. A job of good public relations awaits the medical professions of the 11 counties where the law is not being complied with. Likewise, county physicians are being employed in 17 counties, contrary to the word and spirit of the State Law.

Agreements have been made in 58 counties of which 3 are verbal. These agreements provide payment for office calls in 60 of the counties; house calls in 62 of the counties; medical and surgical care in hospitals in 53 of the counties; minor surgical procedures in offices in 42 of the counties.

Per capita arrangements are found in two of the counties; lump sum payments in five of the counties; while payment on a fee schedule basis holds in 56 of the counties.

The agreements are effective as far as physicians are concerned in 58 of the counties.

Effective coöperation between physicians and welfare boards is noted in 60 of the counties.

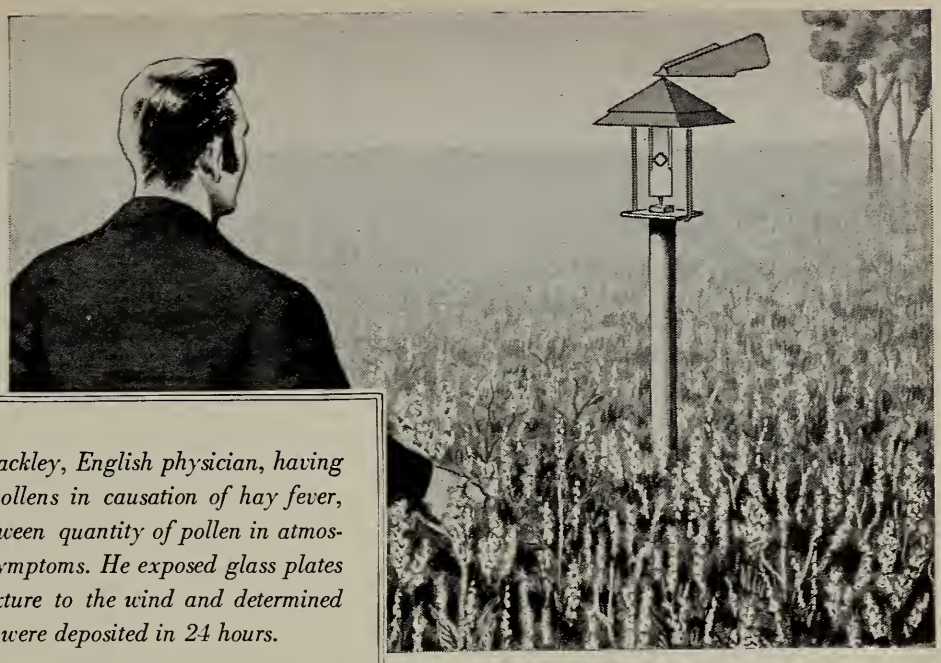
Adequate funds, according to physicians, are being appropriated in only 36 of the counties.

Patients seemingly are not being directed to certain physicians except in 11 counties and questionable in a few others.

MEMBERS OF MICHIGAN MEDICAL SERVICE

The first annual meeting of the members of Michigan Medical Service (who are the members of the House of Delegates of the Michigan State Medical Society, plus the Board of Directors of Michigan Medical Service) will be held in the English Room of the Book-Cadillac Hotel, Detroit, on Monday, September 23, 1940, at 8:00 p.m., the evening preceding the Michigan State Medical Society House of Delegates meeting.

In view of the public reception accorded Michigan Medical Service, and the fact that



In 1870, Charles H. Blackley, English physician, having established the role of pollens in causation of hay fever, investigated relation between quantity of pollen in atmosphere and intensity of symptoms. He exposed glass plates covered with a sticky mixture to the wind and determined how many pollen grains were deposited in 24 hours.

POLLEN HYPERSENSITIVITY

To the large class of hay fever sufferers who demand palliative relief from the unpleasant sneezing, lacrimation and nasal engorgement, a degree of welcome comfort is provided in the use of

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The various dosage forms of Neo-Synephrin Hydrochloride provide a range of potency and application suitable for all types and degrees of nasal allergy.

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Housebook giving details, pictures, and rates will be sent upon request. Telephone 2140. Address,

SAWYER SANATORIUM

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Marion, Ohio

MMS was created by the State Society's House of Delegates, each Delegate (ipso facto a member of Michigan Medical Service) should attend the corporation's Annual Meeting of September 23 and give MMS his utmost support to help expand it into every county so that governmental and lay groups may be kept out of medical practice which must remain under the control of the medical profession for the best public interest.

RE-ENROLLMENT IN GROUP HOSPITALIZATION

Members of the Michigan State Medical Society, who failed to enroll in the Michigan Society for Group Hospitalization plan last February, have the opportunity of enrolling up to and including August 20. Physicians and their families will be protected under the plan approved by the Michigan State Medical Society and the Michigan Hospital Association. For application, write MSGH, Washington Boulevard Building, Detroit, or clip the coupon published on page 515 of the July MSMS JOURNAL. Please do not forward a payment with your application.

PHARMACISTS AID SYPHILIS CONTROL

"WHEREAS, In our desire to coöperate with the Michigan State Medical Society,

"BE IT RESOLVED That the Michigan State Pharmaceutical Association urges all its members to assist the health and welfare forces in the community in the conquest of Syphilis and Gonorrhea by making the following seven principal contributions:

"First, Don't diagnose; Second, Don't prescribe; Third, Refer patients to physicians; Fourth, Don't sell patent remedies for self-treatment of venereal diseases; Fifth, Don't sell defective prophylactics; Sixth, Distribute informational literature obtainable from health departments concerning syphilis and gonorrhea, and Seventh, For the Michigan State Pharmaceutical Association to give valued help as a body of professional men."

This remarkable resolution was adopted unanimously by the Michigan State Pharmaceutical Association at its Grand Rapids meeting, June 1940.

This appreciation of responsibility by the state pharmacists was the result of talks presented at the pharmaceutical convention by Robert S. Breakey, M.D., Lansing, Chairman of the MSMS Syphilis Control Committee and C. K.

Valade, M.D., Detroit, a member of this Committee which for the past three years has done outstanding work in stimulating coöperation among all interested groups in the state to improve conditions in syphilis control.

AMERICAN MEDICAL WOMEN'S ASSOCIATION

Michigan Branch

Annual Meeting

Women's City Club — Detroit, Michigan

Tuesday, September 24, 1940

4:00 P.M. Business Meeting and Election of Officers. Dr. Hallie Hartgraves, Detroit, *President.*

6:30 P.M. Subscription Dinner to honor Dr. Martha Longstreet, Saginaw, Michigan.

8:00 P.M. Scientific Program—Women's Hospital
Chairman, Dr. Frances A. Ford.

"When to Refer Dermatoses"
Dr. Ruth Harrick, Grand Rapids.

"Obstetrical Observations"
Dr. Ruth McGuire, Detroit.

Obstetrical Exhibit
Dr. Frances A. Ford, Detroit.

Cook County Graduate School of Medicine

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ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technic with practice on living tissue, starting every two weeks. General Courses One, Two, Three and Six Months; Clinical Courses; Special Courses.

MEDICINE—Two Weeks Intensive Course starting October 7th. Two Weeks Course in Gastro-Enterology starting October 21st. One Month Course in Electrocardiography and Heart Disease every month, except months of August and December.

FRACTURES & TRAUMATIC SURGERY—Ten Day Intensive Course starting September 23rd. Informal Course every week.

GYNECOLOGY—Two Weeks Intensive Course starting October 7th. Four Weeks Personal Course starting August 26th.

OBSTETRICS—Two Weeks Intensive Course starting October 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting September 9th. Informal and Personal Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course starting September 23rd. Informal Course every week.

ROENTGENOLOGY—Special Courses X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

General, Intensive and Special Courses in All Branches of Medicine, Surgery and the Specialties.

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

WHOOPING COUGH IMMUNIZATION

Following the approval of the Michigan Branch of the American Academy of Pediatrics and the Michigan State Medical Society, the Department's recommended immunization schedule for whooping cough immunization has been changed from "3 to 6 months" to "6 to 9 months."

The changed schedule is now carried on the new forms issued by the State Health Department which are available free to physicians for distribution to parents. This form provides parents with a permanent record of all protective measures given by the family physician. The balance of the immunization schedule is as follows: Diphtheria Toxoid (1st dose) at 9 months; Diphtheria Toxoid (2nd dose) at 10 months; Schick Test at 6 months after Toxoid; Smallpox Vaccine at 1 year; Tuberculin Test at 3 years; and repeat Schick Test at School Age.

INCUBATORS FOR PREMATURES

Five incubators have now been placed in Detroit hospitals for observation as to their effectiveness in the care of premature infants, it has been announced by the Bureau of Maternal and Child Health. Children's Hospital, Woman's Hospital and Highland Park General Hospital are observing the application of the new incubators. Production of additional incubator units is continuing in the engineering division of the Ford Motor Company. It is expected that 100 units will be manufactured during the coming year for placement at strategic centers throughout the state for home care, transportation and hospitalization of premature infants.

MOBILE LABORATORY

A mobile laboratory unit fully equipped to be sent immediately into local areas to assist health officers in controlling outbreaks of intestinal infections has been prepared for use this summer by the State Health Department.

The unit consists of a trailer fitted with the necessary laboratory equipment needed to identify organisms causing intestinal outbreaks. Trained laboratory technicians will be in charge of the unit, which is being held in readiness for calls anywhere in the state. Requests for the services of the mobile laboratory will be cleared through the Bureau of Epidemiology.

REPORTING RHEUMATIC FEVER

In response to many queries as to whether all cases of rheumatic fever are reportable to the State Health Department, the Bureau of Epidemiology has announced that only cases of *acute* rheumatic fever should be reported.

POLLEN COUNT UNDER WAY

The first general pollen survey ever undertaken on a state-wide basis will be carried on this summer in Michigan to obtain data on the comparative prevalence of pollen in the air at 39 selected cities in the northern part of the state and at eight control stations in southern Michigan.

Accurate information on the types and distribution of pollen throughout the state will aid hay fever sufferers in selection of resorts where relief may be obtained. Local communities and the tourist and resort associations are giving financial support to this program.

SILVER PICRATE

Wyeth

HAS SHOWN A CONVINCING RECORD* OF EFFECTIVENESS IN ACUTE ANTERIOR URETHRITIS

due to Neisseria gonorrheae • Trichomonas vaginalis Monilia albicans

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in anterior urethritis: Wyeth's Silver Picrate Crystals in an aqueous solution of 0.5 percent.

Supplied at all pharmacies in vials of 2 grams

Complete literature on Silver Picrate as used in genitourinary and gynecological practice will be mailed on request.

*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA, PA.

PRENATAL DIETS

"What to Eat Before the Baby Comes" is the title of a new folder on prenatal diet which has been prepared by the Nutrition Service of the Bureau of Maternal and Child Health. Prepared for use of physicians and health officers in giving prospective mothers information on prenatal nutrition, the folder includes suggestions on the foods to be eaten each day during normal pregnancy, hints on planning meals, and some useful recipes. Copies of the folder may be obtained free upon request to the Department at Lansing.

AUTO DEATHS INCREASE 17 PER CENT

Automobile deaths for the first five months of 1940 are running 17 per cent ahead of deaths occurring during the same period last year. May automobile deaths totaled 109, bringing the toll for the first five months to 548. This compares with 466 deaths for the same period in 1939. Deaths for each of the five months this year have exceeded those for comparative months of 1939.

PERSONNEL CHANGES

Dr. Frank H. Power, instructor in surgery at University of Michigan Hospital, has been appointed cancer consultant for the Michigan Department of Health, effective July 1. Dr. Power succeeds Dr. Clifford H. Keene. Dr. Power received his undergraduate training at the University of Michigan and his medical degree at Northwestern University in 1936. Following postgraduate training at the University of Michigan, he was appointed instructor in that field in the University Hospital.

Dr. N. Berneta Block returned to the Bureau of Maternal and Child Health, after a leave of absence and will serve as regional MCH consultant for southern Michigan counties.

Dr. Roelof Lanting has been appointed director of District Health Department No. 7 with headquarters at Gladwin.

Dr. Ronald B. Fox, assistant to the director of the Bureau of Public Health Dentistry, has resigned his position to return to private practice.

Dr. Clifford R. Taylor has been appointed to succeed Dr. Fox in the Bureau of Public Health Dentistry.

Dr. E. L. McQuade, staff member of the Bureau of Epidemiology, has resigned. Dr. McQuade had been in charge of the typhoid control program.

IN MEMORIAM

Coral Adelbert Lilly, of Ann Arbor, Michigan, was born in 1877 and was graduated from Rush Medical College, University of Chicago, in 1901. Dr. Lilly previously practiced in Atkinson, Kansas, before locating in Ann Arbor, where he was a fellow in the University of Michigan Department of Internal Medicine. He died May 5, 1940.

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✶ COUNTY AND PERSONAL ACTIVITIES ✶

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3. Branch
4. Cass
5. Chippewa-Mackinac
6. Clinton
7. Delta-Schoolcraft
8. Dickinson-Iron
9. Gogebic
10. Hillsdale
11. Houghton-Baraga-Keweenaw
12. Huron-Sanilac
13. Ingham
14. Lenawee
15. Livingston
16. Luce
17. Macomb
18. Manistee
19. Marquette-Alger
20. Mason
21. Mecosta-Osceola
22. Menominee
23. Midland
24. Muskegon
25. Newaygo
26. Oceana
27. O.M.C.O.R.O.
28. Ontonagon
29. Ottawa
30. St. Clair
31. Tuscola
32. Wexford-Kalkaska-Missaukee

The above Societies have each certified dues for 100 per cent of their physicians who were members in 1939.

"The Treatment of Megacolon with Parasympathetic Drugs" appeared in *The Journal of the American Medical Association* issue of June 29, 1940. The author is John L. Law, M.D., Ann Arbor.

* * *

L. G. Christian, M.D., Lansing, was appointed a member of the A.M.A. House of Delegates' Reference Committee on Legislation and Public Relations at the session held in New York City in June. Frank E. Reeder, M.D., Flint, was appointed Sargent-at-Arms of the House of Delegates.

* * *

"Myasthenia Gravis" by R. C. Moehlig, M.D., Detroit, appeared in *The Journal of the American Medical Association,* issue of July 13, 1940.

"Syphilis of the Bones in Infancy" by Wm. A. Evans, Jr., M.D., Detroit, appeared in *The Journal of the American Medical Association,* issue of July 20, 1940.

* * *

License of Boyajian Bedros Armen, Los Banos, California, to practice medicine in Michigan was revoked by the Michigan State Board of Registration on June 11, 1940, for violation of the narcotic laws of the State of California, in that he obtained narcotic drugs by means of prescriptions written by himself in the names of fictitious patients, and diverted the drugs to his own use.

WANTED—*Assistant Physician* for position as resident physician at Ionia State Hospital. Excellent opportunity for experience in neuro-psychiatry. Salary, $1,980 with additional maintenance for self and family. Excellent living quarters for married man. Write P. C. Robertson, M.D., Medical Superintendent, Ionia State Hospital, Ionia, Michigan.

* * *

The mid-summer meeting of The Council of the Michigan State Medical Society held July 12-13 was followed by a joint meeting with the Michigan Advisory Council of Health, and with State Health Commissioner H. Allen Moyer. Plans for coöperative activity in preventive medicine work were outlined and agreed upon.

* * *

Council and Committee Meetings

1. Monday, June 24—Postgraduate Medical Education Committee—Ann Arbor—6:00 p.m.
2. Monday, July 1—Maternal Health Committee—Hotel Olds—Lansing—12:15 p.m.
3. Thursday, July 18—Legislative Committee—Hotel Porter—Lansing—3:00 p.m.

* * *

The American Congress of Physical Therapy will hold its 19th Annual Session in Cleveland at the Hotel Statler on September 2 to 6, 1940. The plan this year is to devote the mornings to an instructional seminar with the scientific program presented in the afternoons and evenings. The entire instruction schedule is elective in character. Write for schedule, etc., to the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

* * *

Members of the Ingham County Medical Society were guests of the C. J. Rouser Drug Company, Lansing, on a trip to Detroit, July 25, where they visited the Parke, Davis & Company laboratories, watched the Detroit Tigers and the Washington Senators cross bats in a ball game, after which they enjoyed a banquet and entertainment at the Book-Cadillac Hotel. Three bus loads of physicians left Lansing at 6:45 a.m. to make it a full day's "holiday."

* * *

The Eleventh Annual Golf Tournament of the Wayne County Medical Society will be held at the famous Oakland Hills Country Club, Birmingham, on Wednesday, August 21, 1940. Members of the Michigan State Medical Society are invited to join in the fun. Teeing off between 9:00 a.m. and 3:00 p.m. Besides golf, there will be a big dinner, entertainment and prizes galore. Wesley G. Reid, M.D., Chairman of the Golf Committee of the W.C.M.S., hopes to see many members of the M.S.M.S. at the Tournament, August 21.

* * *

"The Science and Art of Living Long" is the title of the talk given by President B. R. Corbus of Grand Rapids at the dinner complimenting Robert E. Flood, M.D., Northport, in honor of his many years of medical practice. The meeting was attended by over 200 of the citizens of the community.

Doctor Corbus addressed the Upper Peninsula Medical Society at its annual banquet at Menominee on July 10 using the subject "The Purpose of a Medical Society."

"Prolonging Life—a Coöperative Effort" was discussed by Doctor Corbus at the joint meeting of the M.S.M.S. Council and the Advisory Council on Health of the State Department on July 12.

DIAMOND JUBILEE OF M.S.M.S.

Your M.S.M.S. Convention is a Great Service to you. A $5,000 Show—at no cost to the individual member.

The 1940 Convention will be held in Detroit at the Book-Cadillac Hotel on September 24, 25, 26, 27. A number of extraordinary events will be featured at the Detroit Convention, which will mark the Diamond Anniversary. Wednesday, September 25, will be marked by the President's Dinner to be held in the Ball Room of the Book-Cadillac Hotel at 7:00 p.m., to which all members of the Michigan State Medical Society and their ladies are cordially invited. (Informal.)

A Smoker, for M.S.M.S. members only, has been arranged for Thursday, September 26, Ball Room, beginning at 9:00 p.m. Admission will be by complimentary card which will be sent prior to the meeting to all members.

Invitational Golf, at the beautiful Detroit Golf Club, will feature Monday, September 23. All M.S.M.S. members are invited. Tee off 1:00 p.m. Dinner and presentation of prizes at the Club, 7:00 p. m. Cost of greens fees and dinner, $4.00.

W. H. Huron, M.D., Iron Mountain and A. H. Miller, M.D., Gladstone, M.S.M.S. Councilors from the Upper Peninsula, will be hosts at an Upper Peninsula Cocktail Party, at the Book-Cadillac Hotel, Wednesday, September 25—5:30 p.m. All physicians and their ladies who are practicing in the Upper Peninsula (or have practiced or hope to practice there) are invited by Drs. Huron and Miller to meet with them for a refreshing sip and a friendly "hello."

Plan now to spend several days in the metropolis of Michigan. Meet your fellow practitioners from all parts of the state, learn the latest advances in medical science from the nation's outstanding physicians and surgeons, and enjoy a well-deserved vacation from your demanding practice. Write for hotel accommodations today.

At the state-wide *Child Welfare Conference,* sponsored by the American Legion department of Michigan, in Bay City on August 17, 18, 1940, Harold A. Miller, M.D., of Lansing, Chairman of the M.S.M.S. Legislative Committee, spoke on "Children's Problems." L. Fernald Foster, M.D., Secretary of the M.S.M.S., presented the "Afflicted and Crippled Child Laws"; Frederick B. Miner, M.D. of Flint, Chairman of the M.S.M.S. Child Welfare Committee, presented a plan of coöperation between the medical profession and the American Legion on child welfare work.

* * *

Army positions are available to physicians immediately in the present hugh task of building up the national defenses. Physicians holding a Medical Corps Reserve Commission can be ordered to active duty if he so requests. Those not holding a commission, but who are under 35 years of age and a comparatively recent graduate of an accredited medical school, may secure an appointment in the Medical Reserve for the purpose of obtaining extended active duty for a period of one year or longer. Duty is given at General Hospitals, Station Hospitals, and with Tactical Units, and embraces all fields of general and specialized medicine and surgery. Especially excellent postgraduate training is obtainable in connection with Aviation Medicine.

Further information may be obtained by writing to The Surgeon General, U. S. Army, Washington, D. C.

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The Board of Directors of Michigan Medical Service held its fourth meeting on July 13, 1940. Progress reports and statistical data were presented by the Chairman of the Board, Henry R. Carstens, M.D., Detroit, the Secretary, Wm. J. Burns, Lansing, Treasurer, Wm. J. Norton, Detroit, and the Executive Director, J. D. Laux, Detroit. The condition of the corporation, after three months' operation, encouraged all members of the Board of Directors to feel sanguine concerning the eventual success of Michigan's voluntary group medical care plan, sponsored by the Michigan State Medical Society after nine years of study and research.

* * *

The Continuation School of Medicine of the Wayne County Medical Society, Ralph H. Pino, M.D., Chairman, announces 1940-41 sessions which begin September 30 and January 5, 1941. Five major sections on Applied Anatomy have been announced including Head and Neck; Thorax and Abdomen; Pelvis; Extremeties; and Central Nervous System (by special arrangement). All of the courses will be given at Wayne University College of Medicine under the direction of W. O. Nelson, in coöperation with heads of departments and such clinicians as shall be named. Each section will run for twelve weeks, four hours one day per week—first hour, lecture, followed by three hours dissections, etc. The course is open to any doctor of medicine in good standing who wishes to review applied anatomy. Write the Wayne County Medical Society for further details.

* * *

The Ingham County Medical Society at its meeting of June 18, 1940, adopted a resolution rejecting the proffered fees of the Crippled Children Commission for the medical care of afflicted children. The resolution begins "The members of the Medical Society of Ingham County, both individually and collectively, regret the action on the part of the Commission in announcing a schedule of fees which is quite out of keeping with the character and quality of the services rendered and out of line with the cost of rendering such services. It appears to indicate a failure on the part of this honorable body to understand and appreciate the idealism and tradition of medicine and loses sight of those principles which guide and motivate members of a profession whose every effort is directed against those conditions, the existence of which means their livelihood." The resolution concludes: "That the members of our Society feel impelled to refuse to accept the fees as provided by the recent revision of former Schedule A, which itself scarcely represented the actual cost of rendering such service, therefore, until the evils herein pointed out shall have been corrected, the Commission will not be billed for professional services rendered a crippled or afflicted child."

* * *

Eight Michigan physicians won awards for their scientific exhibits at the recent convention of the American Medical Association in New York City. In Group I, made up of exhibits of individual investigation, which were judged on the basis of originality and excellence of presentation, Certificates of Merit were awarded to F. W. Hartman, Roy D. McClure, J. G. Schendorf and Victor Schelling, of Detroit, for their exhibit illustrating anoxia as related to anesthesia: production, prevention, treatment and pathology.

Icie Macy-Hoobler of Detroit also won a Certificate of Merit for her exhibit illustrating chemistry of growth and nutrition in childhood.

Honorable mention in this group was given Reuben L. Kahn of Ann Arbor for his exhibit on detection of false positive reactions in serodiagnosis of syphilis.

In Group II, made up of exhibits which do not exemplify purely experimental studies and which were judged on the basis of excellence of presentation and correlation of facts, Honorable Mention was given to Joseph C. Gemeroy, Detroit, for his exhibit on stereo-

scopic photographs of the eye and to E. S. Gurdjian of Detroit for his exhibit illustrating surgical management and surgical pathology of acute head injury; problem of fluid intake, sedatives and narcotics.

* * *

"Osler at Old Blockley," a painting in oil by Dean Cornwell, was unveiled at the dedication of the Osler Memorial Building on the grounds of the Philadelphia General Hospital this past June and was later exhibited at the American Medical Association convention in New York.



The painting depicts one of Osler's outstanding contributions to medicine, namely, bringing medical students to the bedside of the patient for clinical study. In the painting Osler is shown at the side of an elderly patient on the hospital grounds. Surrounding Osler and the patient are internes who have stopped with him as they were on their way to the autopsy house to observe one of his famous post mortems. This autopsy house, now the only Osler Memorial Building in the United States, is shown in the background. This memorial was made possible by a grant from John Wyeth & Brother of Philadelphia, Pa.

Colored reproductions of "Osler at Old Blockley," suitable for framing may be obtained free by addressing requests to M.S.M.S., 2020 Olds Tower, Lansing.

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Wayne County

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Broudo, Philip H. ..... Detroit
Carpenter, Glenn B. ..... Detroit
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VanRhee, George	Detroit
Willson, Wesley W.	Detroit
Woods, H. B.	Detroit

COUNTY MEDICAL SOCIETY MEETINGS

Berrien County—Berrien Center—July 10—Presentation of cases and brief discussion of diagnosis and treatment by the following members of the Society: Drs. R. E. Reagen, N. J. Hershey, D. W. Thorup, R. C. Conybeare, J. G. Ruth, R. A. Scholten, A. F. Bliesmer, and S. Lane.

* * *

Gogebic, Ontonagon, Houghton-Baraga-Keweenaw, and Marquette-Alger County Medical Societies were visited during the week of July 5 to July 9 by President B. R. Corbus, Secretary L. Fernald Foster, Council Chairman Henry R. Carstens and Executive Secretary Wm. J. Burns. Each of these societies turned out in good numbers to honor the officers of the Michigan State Medical Society.

* * *

Midland County—June 13—Midland—Speaker: Gaylord S. Bates, M.D., Detroit, on "Acute Appendicitis" —July 12—Midland—Speaker: Grover C. Penberthy, M.D., Detroit, on "Burns."

* * *

Muskegon County—June 28—Muskegon—Speaker: Victor G. Heiser, M.D.

THE MICHIGAN POSTGRADUATE PROGRAM, OCTOBER, 1940

The Michigan State Medical Society, in coöperation with the University of Michigan Medical School, Wayne University College of Medicine, and The Michigan Department of Health, announces the semi-annual extramural course for practising physicians to be given in October, 1940.

CENTERS	DATES
Ann Arbor	October 10, 17, 24, 31
Battle Creek-Kalamazoo, jointly	October 8, 15, 22, 29
Flint	October 9, 16, 23, 30
Grand Rapids	October 10, 17, 24, 31
Lansing-Jackson, jointly	October 10, 17, 24, 31
Manistee-Traverse City-Cadillac-Petoskey, jointly	October 11, 18, 25, Nov. 1
Mount Clemens	October 9, 16, 23, 30
Saginaw	October 7, 14, 21, 28

The subjects for the course have been carefully selected for their interest to the practising physicians and on the basis of a four-year teaching program. It is hoped that you will make every effort to attend regularly the center most convenient to you.

The course is offered without cost to all legally qualified physicians in Michigan.

Announcement containing complete information about the teaching program is available upon request to the Department of Postgraduate Medicine, University of Michigan, Ann Arbor, Michigan.

A. P. Biddle, M.D.
H. H. Cummings, M.D.
W. B. Fillinger, M.D.
J. J. Walch, M.D.
W. H. Marshall, M.D.
C. L. Hess, M.D.
Fred H. Cole, M.D.
Douglas Donald, M.D.
Henry A. Luce, M.D.
A. J. Baker, M.D.
James D. Bruce, M.D., *Chairman*
Committee on Postgraduate Medical Education
Michigan State Medical Society

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

CLINICAL DIABETES MELLITUS AND HYPERINSULINISM. By Russell M. Wilder, M.D., Ph.D., F.A.C.P. Professor and chief of the Department of Medicine, The Mayo Foundation for Medical Education and Research, University of Minnesota; Head of the Section on Metabolism Therapy, Division of Medicine, The Mayo Clinic, Rochester, Minnesota. 459 pages with 19 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price: $6.00.

This is a Mayo book, complete and well-written. It is a monograph limited to clinical consideration except for the usual physiological discussion. It is very thorough and discusses quite fully the various complications of diabetes. Of particular interest is the use of footnotes to present material which would confuse the coherence of the text if otherwise placed.

PHYSICAL THERAPY FOR NURSES. By Richard Kovacs, M.D., Clinical Professor and Director of Physical Therapy, New York Polyclinic Medical School and Hospital; Attending Physical Therapist, Manhattan State, Harlem Valley State and West Side Hospitals; Visiting Physical Therapist, New York City Department of Correction Hospitals; Consulting Physical Therapist, New York Infirmary for Women and Children; Mary Immaculate Hospital, Jamaica, New York, Hackensack Hospital, Hackensack, New Jersey. Second Edition, thoroughly revised. Illustrated with 99 engravings. Philadelphia: Lea and Febiger, 1940. Price: $3.25.

This is the second edition of a very popular textbook for nurses. It presents simply and intelligently the theory behind various physical therapy procedures and instruments and discusses the use and abuse of these procedures. It is recommended as a practical and useful guide for the teaching of physical therapy to nurses.

A TEXTBOOK OF PHYSIOLOGY. By William H. Howell, Ph.D., M.D., Sc.D., LL.D. Emeritus Professor of Physiology in the Johns Hopkins University, Baltimore, Maryland. Fourteenth Edition, Thoroughly Revised. 1117 pages with 330 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price: $7.50.

The fourteenth edition of a standard textbook of this subject first printed in 1905. Revised for the first time in four years it presents numerous important changes made necessary by developments in this field. Essentially for students, it is, however, an invaluable reference work for any physician.

A MANUAL OF OTOLOGY, RHINOLOGY AND LARYNGOLOGY. By Howard Charles Ballenger, M.D., F.A.C.S., Assistant Professor of Otolaryngology, Northwestern University School of Medicine, Chicago, Illinois. Illustrated with 90 Engravings and 4 Color Plates. Philadelphia: Lea and Febiger, 1940. Price: $3.75.

The junior author of Ballenger and Ballenger's "Diseases of the Nose, Throat and Ear," which is a standard work for that field, has prepared this small concise textbook primarily for the undergraduate medical student. Its style and instructive illustrations recommend it as a practical reference manual for the general practitioner. It is unusually comprehensive for this type of book.

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OBESITY AND LEANNESS. By Hugo R. Rony, M.D., Formerly Associate in Medicine and Chief of Endocrine Clinic, Northwestern University School of Medicine, Chicago, Illinois; Formerly Attending Physician, Cook County Hospital, Chicago, Illinois; Member Central Society for Clinical Research, the Association for the Study of Internal Secretions, Etc. Illustrated with 32 engravings. Philadelphia: Lea and Febiger, 1940. Price: $3.75.

In this book is correlated the relation of obesity or leanness with up-to-the-minute studies in the fields of endocrinology, neurology, intermediary metabolism, cells, physiology, genetics, etc. The book provides the answers which are required of the physician in handling these puzzling cases. A rational system of therapy and detailed suggestions make the book of importance to the practitioner.

THE FOOT AND ANKLE. Their Injuries, Diseases, Deformities and Disabilities. By Philip Lewin, M.D., F.A.C.S., Associate Professor of Bone and Joint Surgery, Northwestern University Medical School; Professor of Orthopedic Surgery, Post-Graduate Medical School of Cook County Hospital; Attending Orthopedic Surgeon, Cook County Hospital; Attending Orthopedic Surgeon, Michael Reese Hospital, Chicago; Consulting Orthopedic Surgeon, Municipal Contagious Hospital, Chicago. With 303 illustrations. Philadelphia: Lea and Febiger, 1940. Price, $9.00.

The author has recognized the neglect by the average physician in treating conditions of the foot. This has

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allowed the "mushrooming" of chiropodists. The use of this book should help the general practitioner to aid his patients who suffer from foot disorders and should therefore enable him to increase his office practice. The major affections are also ably discussed. A number of pedigrams, in other words, epigrams, relating to the feet, provides an interesting appendix.

ENDOCRINE THERAPY IN GENERAL PRACTICE. By Elmer L. Sevringhaus, M.D., F.A.C.P., Professor of Medicine, University of Wisconsin, Madison, Wisconsin; Editor, Department of Endocrinology, The Year Book of Neurology, Psychiatry and Endocrinology. Chicago: The Year Book Publishers, Inc., 1940. Price $2.75.

This semi-pocket-sized book is principally pointed toward making the diagnosis and treatment of diseases of endocrine origin easy for the general practitioner. It is simply written and thorough.

Take It and Like It

Chairman of the Council Carstens, Secretary Foster and Executive Secretary Burns appeared at the Summer Council Meeting at Mackinac Island rather the worse for wear. Being opportunists, they used the occasion of the joint meeting of the Privy Council of the State Health Department and the Council of the Michigan State Medical Society as a forum to voice their opinion of certain minor sanitary inconveniences encountered in their journeys through the Vacationland. They received no practical suggestions and a modicum of sympathy. The harrowing tales of misfortunes and vicissitudes brought forth only raucous laughter from the travel-hardened councilors. However, many helpful suggestions were furnished the Chairman on what to do for the "over-heated pump" which caused many unscheduled stops.

Two full days at the conference table did not detract from the social highlight of the meeting, a pre-prandial reception held in President Corbus' room with the Council and the Public Health men in attendance.

Roy Perkins of Bay City with a complete change of ensemble at every session was easily the outstanding sartorial hero of the meeting.

McIntyre, Barstow, Huron and Miller spent most of their spare time in political conclave.

Notice to dealers in safety tires: Oscar Stryker, Speaker of the House of Delegates, is in the market. (At least the Editor hopes so.)

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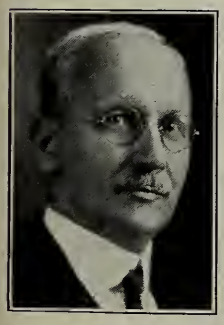
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Common Lesions
Of the Vulva*

By Fred J. Taussig, M.D.
Saint Louis, Missouri



Fred J. Taussig, M.D.
Harvard, A.B., 1893; Washington University, M.D., 1898; President, Central Association of Gynecology and Obstetrics, 1929; President, American Gynecological Society, 1937; Gynecologist, Barnard Free Skin and Cancer Hospital, 1906-1938; Professor of Clinical Obstetrics, Washington University School of Medicine.

■ While readily accessible for examination, the vulva comprises a portion of the body with a great variety of pathologic lesions, many of which are difficult of accurate diagnosis. The reason for this is that on the one hand the vulva is a portion of the integument and hence subject to almost every conceivable form of skin disease, and on the other hand, it is a portion of the genital tract with all the physiologic and pathologic processes attendant upon puberty, sexual relations, childbirth, and the menopause. It thus occupies a border-line position between the field of the dermatologist and the gynecologist. The literature upon diseases of the vulva is to be found in the journals of both these specialties, and correct diagnosis and appropriate treatment cannot be given unless both fields are studied.

Anatomic Peculiarities

Certain anatomic peculiarities should be stressed. There is usually a heavy growth of hair covering the entire mons veneris, and all but the inner aspect of both labia majora. The skin of the prepuce, the inner surface of the labia majora, the entire labia minora and the perineum are almost wholly free of any hair, but are plentifully supplied with sebaceous glands. These glands, together with the numerous sweat glands found over the entire vulvar skin, including the crural folds, produces a moisture favorable for bacterial growth. The sheltered position of the vulva between the thighs, the passage of urine over the surface, and the proximity to the anus, add further to this moisture and bacterial contamination.

A third type of epithelial covering is found in that portion of the vulva known as the vestibulum vaginæ, situated between the inner edge of the labia minora and the hymeneal ring, including the peri-urethral area above and the fourchette below. This area has a pinkish color, contains few glands, and exudes a moisture similar to that of mucous membranes. The epithelium here is much thinner and more delicate, hence is more readily abraded by any trauma and more sensitive to infection.

Finally, we have as important sub-epithelial structures the erectile body known as the clitoris, subject to sexual influences, and the two laterally placed racemose glands, named after Bartholin, that secrete quantities of mucous and may permit entrance of infection through their ducts.

The blood and nerve supply of the vulvæ come largely from the lower lateral corners around the tuber ischii as the pudic trunks, and ramify upwards and inwards toward the clitoris. The lymph channels on the other hand do just the opposite. They start from the anus and inner labia, passing upwards and outwards to form larger trunks that drain into the femoral and inguinal lymph glands, situated in the groin

*Read at the annual meeting of the Michigan State Medical Society, Detroit, September 20, 1938.

(Fig. 1). As will be evident from a subsequent discussion of certain diseases, these anatomic considerations are vital for a proper understanding of diagnosis and treatment.

The common diseases of the vulva chosen for discussion are the following:

1. **Furunculosis.**
2. **Leukoplakic vulvitis, and other forms of vulvar pruritus.**
3. **Syphilis of the vulva.**
4. **Chronic hypertrophic ulcerative vulvitis (a hydra-headed monster).**
5. **Carcinoma of the vulva.**

Furunculosis

1. *Furunculosis* of the vulva, which is discussed very cursorily in most textbooks on gynecology, is of relatively frequent occurrence. The number of patients I have seen in recent years raised the suspicion that the modern aseptic gauze pads worn at menstruation, often quite irritating to the skin, may be a factor in this increased incidence of furunculosis. At any rate, this disease may be very painful and prolonged. The old saying, "If you have one boil, you will have seven," is often true. It is not uncommon for the boils to appear in other areas, such as the armpits, the gluteal regions, and the eyelids. The infection, due to the staphylococcus, gains an entry along the roots of the hair-follicles as a rule. The tendency for a recurrence of these boils is so universal that every possible measure should be taken to prevent the spread of infectious material and increase the resistance of the tissues and the individual as a whole to further inoculation. The usual site is in the hairy surface of the labia majora where they may form an abscess of considerable size with edema and surrounding cellulitis. Even before the first boil has broken down a second may be forming on the opposite side. The pain is so considerable that the patient can, with difficulty, keep active on her feet.

The treatment of furunculosis consists of incision of the boils, when ripe, and the prevention of a recurrence. It is important that all manipulations are extremely gentle, and that a cross incision is made to provide ample drainage. Squeezing of the tissues is dangerous. The prevention of a recurrence may be divided into local and general measures.

Local measures consist of shaving the entire vulva, and keeping the vulvar skin as dry and aseptic as possible. The patient should stay off her feet as much as possible, lying with her legs apart so as to promote drying. The parts should be cleaned first with boric acid cotton sponges, followed by a thorough application of 50 per cent alcohol over the entire surface, and then lightly dusting the surface with talcum powder.

Soap, heat and stronger antiseptics are harmful.

Since some of these cases are associated with diabetes, a urinalysis should be made and if sugar is found, the diet must be regulated accordingly. Of considerable value is building up the patient's resistance by a diet rich in vitamins. Whenever, in spite of these local and general measures, boils recur, I have found definite value in giving staphylococcus vaccine hypodermically every three days in increasing doses for a period of a month, or even longer. Autogenous vaccines, owing to frequent contamination with colon bacilli, are often not so effective.

Leukoplakic Vulvitis

2. *Leukoplakic vulvitis* is a disease found primarily in women at or beyond the menopause, although in about ten per cent the age may be between 16 and 40 years. In one of my patients the disease started at the age of 17. The term kraurosis has been widely employed for this disease, but should more properly be limited to those cases of leukoplakic vulvitis in which there is complete flattening of both labia and constriction of the vaginal orifice.

Types.—In general, we may distinguish two types of this disease and two stages. The first and most common is the *symmetrical or generalized type.* Here the area involved is either the entire non-hairy portion of the vulvar skin including the perineum and often the peri-anal tissues well back to the level of the coccyx, or in symmetrical form a portion of this area such as the tissues around the prepuce, or the perineo-anal region. The other type of leukoplakic vulvitis is the *unilateral,* in which an irregularly ovoid area is involved by the pathological process on one of the labia.

Stages.—The two stages of the disease are: (1) the early or hypertrophic and (2) the late or atrophic. In the former there is edema, some sclerosis, and a greyish-white color; the labia itching. It is thus a vicious circle that leads from bad to worse.

Treatment.—Treatment of leukoplakic vulvitis should in almost every instance consist of a

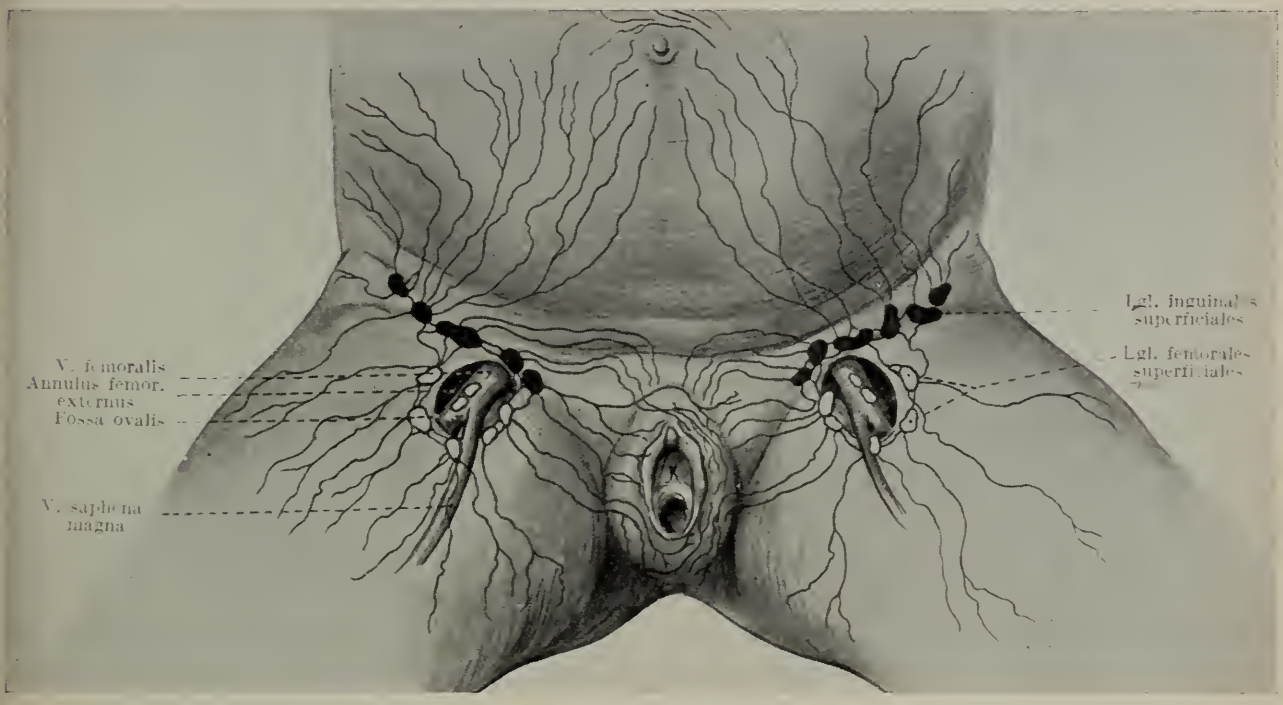


Fig. 1. Anatomic distribution of lymphatic drainage from the vulva (Kehrer).

minora are shortened but still visible as definite ridges. Microscopically the epidermis shows marked acanthosis, epithelial prolongations and but little increase in keratin. In the late or atrophic stage the skin has become parchment-like, white in color, with many crackles and abrasions due to its lack of elasticity. The labia minora are usually flattened and there is marked dryness (Fig. 2).

There are, however, cases that cannot be so easily classified. We may at the very start have a dry, atrophic vulvar skin with flattened labia minora, dusky-red in color with but a small patch of leukoplakic skin around the prepuce or over the perineum.

In four out of five cases there is considerable pruritus, at times so pronounced as to lead to intractable loss of sleep and melancholia. Where pruritus is a minor symptom, there is a feeling of burning and tightness. Many of these women have tried a variety of salves and lotions before consulting a physician. The pruritus leads to scratching and the abrasions thus produced cause localized infection with increased burning and

complete vulvectomy, often including a triangular flap of skin back of the anus. Less radical measures lead to failure. Injection of ovarian sex hormone may give temporary relief, as will, at times, a course of x-ray treatments. The latter, however, has serious dangers owing to the tendency to burns that aggravate the disease. Sympathectomy has been recommended, but relief after this operation rarely lasts more than two years. In my experience in over 75 cases, a majority of which have been followed for 5 to 20 years, the percentage of failures with vulvectomy is extremely small. There is at times a feeling of tightness and a few recurrent patches of leukoplakia are readily removable by superficial cautery. Occasionally after a complete vulvectomy, the peri-anal skin which previously had shown no pathology, develops leukoplakic changes necessitating a second plastic removal. On the whole, vulvectomy, if properly done, is preferable to the more serious operation of sympathectomy. It has the further advantage of removing what may fairly be called a precancerous skin, for it has been established that carcinoma will develop in from 40 to 50 per cent of leukoplakias.

Pruritis Vulvæ.—In connection with leukoplakic vulvitis, a brief discussion of the broader subject of *pruritus vulvæ et ani* is in order. This nonleukoplakic pruritus is one of the bug-bears of the gynecologist.

It is really a symptom rather than a disease, and the factors producing it are more often somatic than local.

We do, of course, find pronounced pruritus associated with mycotic, gonorrheal and trichomonas vaginitis. Here the correction of the vaginal discharge brings complete and prompt relief.

Generalized pruritus is, of course, characteristic of certain disturbances of the biliary passages, but usually the itching is not localized to the vulva. Dietary excesses, the ingestion of larger amounts of meat, fats, greasy foods, spices, salt, coffee or alcohol, may in certain individuals predispose to pruritus of the vulva and anus. Whether toxic or allergic factors are predominant in causing this condition is not clear, but it has been amply proven that in some cases the pruritus can be cured by a prolonged restriction of these articles of food from the diet. Endocrine disturbances, especially the hypofunction of the ovaries at menopause or their operative removal before that time, may lead to pruritus, so that the hypodermic administration of 50,000 to 100,000 international units of female sex hormone is often indicated and may give considerable relief.

Above all, we should keep in mind the possibility of psychoneurotic causes at the root of this disease. E. Kehrer greatly emphasizes this etiologic factor. I agree with him that in about two-thirds of the cases careful analysis will reveal a prolonged mental upset preceding the pruritus. Often sex relations are responsible. In every case a thorough psychoanalysis should be made.

The physical changes in simple pruritus are relatively minor. At first nothing can be noted except moderate swelling and increased redness of the labia. Later the skin assumes a leaden color and a thick leathery consistency, with scratch-marks and minor infected sores. Local treatment is helpful, but temporary in its effect. An ointment of 5 per cent anesthesin in a mixture of lanolin and zinc oxide ointment has been the best in my experience. Injection of 10 c.c. of a 1 per cent novocain solution in saline into the tissues surrounding the pudic nerve at its entrance into the vulva near the tuber ischii gives relief for a few days, as will a para-sacral injection. All these are temporary measures. Resection of the pudic nerves and its branches is technically difficult and unsuccessful as a rule. Vulvectomy is equally ineffective as a permanent cure. In intractable cases a peri-aortic sympathectomy has been successful in the hands of some men, but I have no personal experience in this field.

All in all, the best results have been obtained by a consideration of etiologic factors, a correction of dietary régime, and above all, an elimination of faulty sexual habits, with emphasis on exercise and an out-door life to lower sex activity.

Syphilis

3. *Syphilis* of the vulva is probably the most common of all lesions. The external genitals are usually the port of entry of this disease in woman and yet in spite of the frequency of this infection the injury to the tissues is usually so slight as frequently to be overlooked. We are struck with the rarity of any record of a genital sore in women with positive Wassermann reactions. The typical Hunterian chancre has, however, a characteristic appearance. It is often located in the inner aspect of the labium majus near the fourchette, a flat ulcer with cartilagenous edge, and marked edema of the surrounding tissues. In fact, unilateral edema of the vulva should always demand a careful search for such an ulcer as its possible cause. The secondary eruption of syphilis manifests itself in mucous patches, multiple, superficial, grey-based ulcers, 3 to 5 mm. in diameter, situated about the vestibulum vaginæ, or flat plateau-like moist excrescences, the condylomata lata, found most often over the perineo-anal region.

It is only the tertiary lesions of syphilis that produce destructive changes. Pustular lesions are infrequent. Gummatous deposits with ulceration appear primarily at two points: (1) the inner margins of the urethra; (2) the fourchette. The urethra, especially in the negro race, may be so indurated and destroyed that it opens up and looks like a bilaterally lacerated cervix. The

tertiary ulcers about the fourchette may almost encircle the vaginal orifice and penetrate into the rectum, producing a recto-perineal or recto-vaginal fistula. There is much indurative hypertrophy of the labia and formation of peri-rectal tags in the later stages of tertiary lues. These tertiary ulcers rarely cause bleeding, only a foul sero-purulent discharge. They are not friable, have indurated edges and abundant scar tissue is present from old healed ulcers.



Fig. 2. Leukoplakic vulvitis.



Fig. 3. Chronic hypertrophic ulcerative vulvitis.



Fig. 4. Carcinoma of the vulva.

Chronic Hypertrophic Ulcerative Vulvitis

4. *Chronic hypertrophic ulcerative vulvitis* is most often associated with a pre-existing or latent syphilis. I have included under this general head what has been variously termed as elephantiasis of the vulva, esthiomene, rodent ulcer, lupus of the vulva, granuloma inguinale and lymphogranuloma.

The literature on this subject is most confusing and in spite of recent studies especially on the subject of lymphogranuloma, I have kept to my original terminology, because it seemed simpler to group these various lesions under one head.

Fundamentally, regardless of other concomitant infections, chronic hypertrophic ulcerative vulvitis results from a block of the vulvar lymphatic system leading to chronic edema with hypertrophy on the one hand and lowered resistance to infection and necrosis on the other hand. Racially the negroid type is especially prone to these vulvar enlargements and from an infectious standpoint organisms carried by repeated sexual contact in unclean individuals predominate. Hence, negro prostitutes are prone to have it. Syphilis with its obliterative endarteritis is the most frequent underlying infection. Yet it is probably true that secondary infections, such as that due to Donovan's organism, the virus of lymphogranuloma, or the tubercle bacillus, are largely responsible for the persistent ulcerations and hypertrophies that characterize the further development of the disease. Lymphogranuloma is the best defined of these secondary infections. The Frye test points to a certain specificity, even though the responsible organism has not yet been isolated. Rectal ulcers leading to stricture are often associated with lymphogranuloma, but may also be found in tertiary syphilis. The inguinal lymph glands are often enlarged and necrotic.

Chronic hypertrophic ulcerative vulvitis may be broadly divided into two groups: those in which the hypertrophic changes predominate (so-called elephantiasis) and those in which ulceration is the most pronounced lesion (so-called esthiomène). There are, however, many cases that show both hypertrophy and ulceration. As a rule, the labia are the seat of these changes, less often the clitoris and prepuce

are involved, and in a third class, both prepuce and labia undergo hypertrophy with ulceration. The symptoms of this disease are pain on urination, at times incontinence of urine and feces, burning and a sense of dragging. Intercourse is often impossible owing to large tumors and scarring. In pendulous large tumors, walking is greatly impeded (Fig. 3).

Treatment.—The treatment of this disease is on the whole very unsatisfactory. In the presence of possible remnants of syphilitic infection, the iodides and mercurial treatment may help to heal the ulcerations. Injections of tartar emetic have been found of value in those cases with positive Frei test or Donovan's organisms. Under simple hygienic measures, exposure to light, keeping the tissues dry, the use of mild antiseptics to stimulate epithelialization, the large ulcers will often heal, provided no re-infection occurs. Large hypertrophic pendulous masses with nodules and relatively minor ulceration can be successfully removed surgically, even though the operative wound heals slowly. After such a vulvectomy, the tissues can more readily be kept clean and further infection and necrosis reduced to a minimum.

Carcinoma

5. *Carcinoma of the vulva* is the most serious and hence the most important of the five diseases we have chosen for discussion. As I have stressed in previous publications, its appearance and prognosis varies greatly with the portion of the vulvar tissues that may be involved. Four principal sites must be differentiated:

1. The vulvar skin
2. The vestibulum vaginæ
3. Bartholin's glands
4. The glans clitoris

These four are listed in the order of their frequency and in general it may be said that the first named, the epidermoid form, springing from the vulvar skin, is about twice as frequent as the other three forms combined. It is this epidermoid carcinoma of the vulva that so often arises on the basis of a pre-existing leukoplakic vulvitis, and justifies as a preventive measure the extensive removal of these leukoplakic areas.

Where a cancer develops from a leukoplakic vulvitis, I am convinced from long experience that it is bad surgery to fail to remove every bit of the associated leukoplakia, for if this is not done a new cancer may develop many years later from a remaining island of leukoplakia.

I have had numerous instances of this in my series. This epidermoid form is usually quite slow in its local development. Sometimes a lump may remain almost unchanged for a year or two (Fig. 4).

Degree of Malignancy.—Fortunately, the highly malignant forms of carcinoma of the vulva are the least frequent (Bartholin gland, clitoris and vestibular) so that it is not surprising that Eichenberg (Berlin) in a histo-pathologic study of 116 cases, found ninety-six tumors with differentiated cells (type 1 or 2); eleven tumors, intermediate in malignancy (type 3); and only seven tumors that were anaplastic (type 4). My own study of fifty-eight cases was not quite so favorable. I found thirty-seven differentiated (type 1 and 2); sixteen intermediate (type 3); and five anaplastic (type 4). The tendency to gland metastasis is almost as great in the differentiated forms as in the anaplastic, but local extension and rapidity of growth in the primary tumor usually corresponds with the degree of malignancy as determined histologically.

The clinical appearance of the neoplasm will also indicate its relative malignancy. The cauliflower everting forms grow more slowly than the inverting infiltrating tumors. The high percentage of early gland metastases is the most characteristic feature of vulvar cancer and upon it rests the whole rationale of treatment. Compared to corresponding stages in the local development of cancer of the cervix, we find gland metastases twice as frequently in cancer of the vulva (66 per cent compared to 35 per cent). This statement is not based upon clinical findings but upon histologic examination, for we often find hard, enlarged glands without evidence of cancer, and small, soft ones that contain a cancer nest.

The very large adherent or necrotic glands are, of course, all malignant, but, in general, adenopathy is not a reliable index of metastasis and should not influence our treatment.

Nor does the size of the local lesion help us in this matter, for I have often seen local ulcers 1-2 cm. in diameter with cancer metastases in the lymph glands ten times as large as the primary lesion. Yet, in spite of this tendency to metastasize to the tributary lymph glands, it is striking that as a rule the tumor remains limited to a very small portion of the body. Eichenberg in Berlin performed 41 autopsies in cancer of the vulva, and in only 5 instances did the cancer extend up to the aortic glands. This is a highly important contribution to our plan of treatment, for it explains the relatively high percentage of cures obtained when the local tributary lymph gland chain was removed with the tumor. There is such free anastamosis between the two inguinal regions and the vulva that a unilateral gland removal rarely results in a permanent cure. In more advanced cases the lymph gland cancer metastasis will burst through its capsule and since it usually lies close to the large femoral vessels, we may find involvement of these structures making complete removal impossible. Under pressure necrosis and associated infections, the glands may break down and open into the groin with the development of a huge cancerous ulcer. In Figure 5 is seen the anatomic distribution of metastatic lymph glands in my sixty-five cases of cancer of the vulva. The higher glands are not frequently involved, it will be noted.

Preventive Treatment.—Mention has already been made of irritative lesions of the vulva as a forerunner of cancer. The most significant of these is that form of atrophic vulvitis associated with leukoplakia. If in these cases of leukoplakic vulvitis a vulvectomy is refused by the patient, she should be kept under close observation so that the development of an early carcinoma is not overlooked. Every bit of leukoplakic skin must be removed to prevent recurrence of the irritation.

Warts of the senile type are evidence of local irritation and their removal is advisable since they are at times a forerunner of vulvar cancer. Cystic enlargement of Bartholin's gland persisting after the menopause, was reported in three out of six Bartholin gland cancers. Removal of these might have prevented the cancer. Finally, we should not leave untreated the tertiary ulcerations of the vestibular region associated with syphilis, especially in colored women, since when cancer develops in this area, it is usually on the basis of an old luetic ulcerative lesion. The elimination of the foregoing irritative lesions about the vulva should materially reduce the incidence of malignant change.

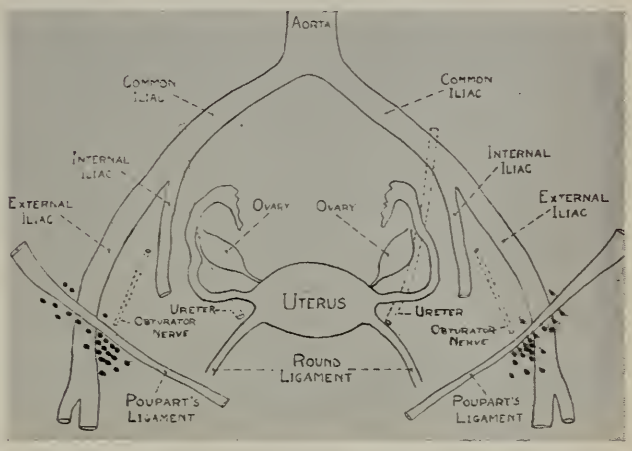


Fig. 5. Distribution of lymph gland metastases in carcinoma of the vulva.

Clinical Grouping of Cases.—In deciding as to the proper method of treatment, we must consider not merely the local and glandular involvement of the disease, but also weigh in the balance the patient's general physical condition, her ability to withstand radical surgery.

The extent of the vulvar lesion can readily be determined. Moderate gland hyperplasia is a normal finding in these old women. Only when glands are the size of an acorn, hard and multiple, can we be reasonably certain of a metastasis. With this in mind, I have divided cases into five groups:

Group I. Primary lesion less than 3 cm. in diameter. No evidence of gland metastasis.

Group II. Primary lesion from 3 to 7 cm. in diameter, without subpubic involvement. No positive evidence of gland metastasis.

Group III. Primary lesions over 7 cm. in diameter, or smaller lesions that show deeper infiltration or evidence of gland metastasis.

Group IV. Primary lesions with extension to the vagina, urethra or subpubic space, or those with adherent glands.

Group V. Cases involving the entire vulva with vaginal infiltration, or with large broken down inguinal metastases.

The first three groups comprise the cases usually suited for radical surgical measures. In

Group IV and V, only palliative cautery excisions or radiation can be attempted.

We cannot, however, include all the cases in Groups I, II and III as operable, for in a certain number of these women, heart and kidney lesions, or general debility present a surgical contra-indication. We will rarely feel justified in doing an extensive operation on a woman over eighty years of age. Even at seventy-five we hesitate to do a radical gland removal. Yet age alone should not be our guide, for many women at seventy-five are better risks, are less debilitated, than others at sixty-five. The extension of carcinoma of the vulva is less rapid than that of cancer of the cervix. Hence we have found that 75 per cent of cases presenting themselves to us in the past ten years were suitable for radical operative intervention.

Treatment.—Owing to the relative infrequency of carcinoma of the vulva (4 per cent of all genital cancers in women), it is not surprising that few gynecologists have developed any definite routine in the management of their cases. While radiation treatment has a certain number of advocates (Heyman, Bowing, Cahen-Delporte, Schreiner and Wehr), the majority have always favored surgical measures, sometimes supplemented by radiation. These operations have, however, varied greatly in their extent. Some have contented themselves with a simple vulvectomy; others have removed the superficial inguinal-femoral lymph-chain with the vulva (Calvin and Rentschler, Tausch); a third group has included the deeper glands situated on either side of the external iliac vessels (Basset, Taussig); and a fourth group has also included the removal of glands in the iliac triangle usually through a laparotomy (Stoeckel, Kehrer).

The more or less routine adoption of a certain method of treatment does not mean that there are not occasional exceptions. My own routine, wherever possible, is to do the lymph gland operation originally suggested by Basset, together with a vulvectomy and without any radiation treatment before or after operation. This is my procedure in approximately 75 per cent of the cases as they have come under my observation in the past ten years. In almost every instance some sort of a "cleaning-up" of the local lesion will give palliative relief. The mere superficial extent of the ulcer should not discourage the physician. I am convinced that many cases of vulval cancer are now being condemned to a painful, and perhaps needless, death by an unjustified policy of despair. Cases are labeled hopeless that can still be saved or alleviated.

The splendid results obtained in the treatment of cervix cancer by x-ray and radium have not been duplicated in malignancy of the vulva. The reason for this is two-fold: (1) Vulvar cancer metastasizes early to the lymph glands where it can rarely be completely destroyed by deep x-ray or radium pack application; (2) the skin of the vulva is normally very sensitive to relatively small amounts of radiation, so that complete destruction of the malignant ulcer is usually impossible without deep painful necrosis of the surrounding tissue. Nevertheless, we find that Heyman of Stockholm, an enthusiastic radium therapist, is satisfied with his results. In 1931 he reported fourteen cases treated from 1914 to 1923, by a combination of radium and deep x-ray, with three cures (21.4 per cent). We have been compelled in three patients to excise a radium burn surgically in order to relieve the patient of the excruciating pain caused by the burn. In none of these three cases could we find microscopically evidence of remaining cancer, but in all three there was almost instantaneous relief of pain in spite of the considerable surgical wounds caused by this secondary excision.

The five-year results obtained by us with various methods of treatment in carcinoma of the vulva demonstrates, beyond peradventure, the decided advantages of the radical operation. From this it will be seen that radiation treatment alone does not yield more than 10 to 15 per cent of five-year cures. The superficial type of operation with vulvectomy is only slightly better with its 25 to 30 per cent cures, whereas the radical operation by the modified Basset operation gives as high as 65 per cent five-year freedom from recurrence. Even granting that the total number of cases thus far reported is relatively small, there can be no question that this more radical procedure is definitely to be preferred over any other.

Kehrer, Vogt and I have called attention to the

fact that recurrences not infrequently take place even after five years. If these recurrences are local, there is still a chance of obtaining a final cure by excision of the recurrent ulcer. Vogt reports three recurrences, eight, fourteen and eighteen years after operation. Whether these late recurrences are more frequent in cancer of the vulva than in other forms of malignancy is open to argument. There is, however, a definitely smaller number who survive the ten-year limit. This can readily be explained by the fact that the average age of patients with cancer of the vulva is close to sixty years and that the normal life expectancy of such an individual is less than ten years more. Deaths from apoplexy, pneumonia or nephritis, without evidence of any recurrent malignancy are frequently reported, as was the case in our own series. The ten-year survival rate, therefore, has not the same value that it has in cancer of the uterus or breast, where the average age incidence is between forty-five and fifty years.

Cases that have been lost track of must be considered as recurrent, even though they remained well for several years and the prognosis seemed good. By means of careful social service follow-up, it should be possible to keep in touch with practically every case. Only one of our 49 Basset operation cases have thus been lost sight of. The ten-year cure rate, eliminating those that positively died of other causes, was 55 per cent, compared to 65 per cent five-year survivals.

In conclusion, may I ask that you give more consideration to these not uncommon diseases of the vulva. In this brief presentation it was possible to stress only a few high points. Gross errors in diagnosis are not infrequent and, most serious of all, ineffective treatment is often given in such conditions as carcinoma where the chances for success by radical surgery are so good. I would urge a more careful study of these diseases.

The problem that confronts us today is the need for the medical man to be equipped to meet the medical needs and adjust himself to the present social and economic problems. The future of medicine depends upon the present work and efforts of its practitioners. If physicians, through constant postgraduate effort, continue to give medical care of good quality, and if, through the wholesome knowledge of the social aspects of sickness, they continue to bring the truth to the people, little need be feared for the future of medicine.—Grover C. Penberthy, M.D., at the County Secretaries' Meeting, Lansing, February 7, 1939.

Fungi

Relation to Respiratory Allergy*

Air Survey in Southern Michigan

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■ Within recent years fungi have played an ever-increasing rôle in allergic diseases, especially in asthma and nasal allergy.[1,2] They have also been recognized as a common complicating factor in other diseases of the respiratory tract. Evidence indicates that mold spores in the air show marked variations which are dependent on regional conditions. We therefore felt that the diagnosis and treatment of the above named diseases would be greatly aided in Michigan by a survey of the air for its fungus content.

After intensive preliminary studies concerning the growth and exposure of plates the details of which will be published elsewhere[3,4] we decided to employ the following method: Sabouraud plates were exposed for thirty minutes† daily on top of a four-story building in the center of Detroit for a period of one year. The number of colonies of each genus was counted, identified, and entered on a graph. Realizing the variations to which our results would be subject, we attempted to establish as many controls as possible. For instance, plates were exposed simultaneously under the same experimental conditions, three feet and ninety miles apart from

*This investigation has been made possible by a grant of Mr. J. E. Fields, Detroit, which we gratefully acknowledge.

†After many exposures ranging from five minutes to twenty-four hours, we decided that the optimum exposure time was thirty minutes during the winter months. During summer, when a much larger number of fungi were found, two plates were exposed consecutively for 15 minutes each in order to facilitate more accurate counting.

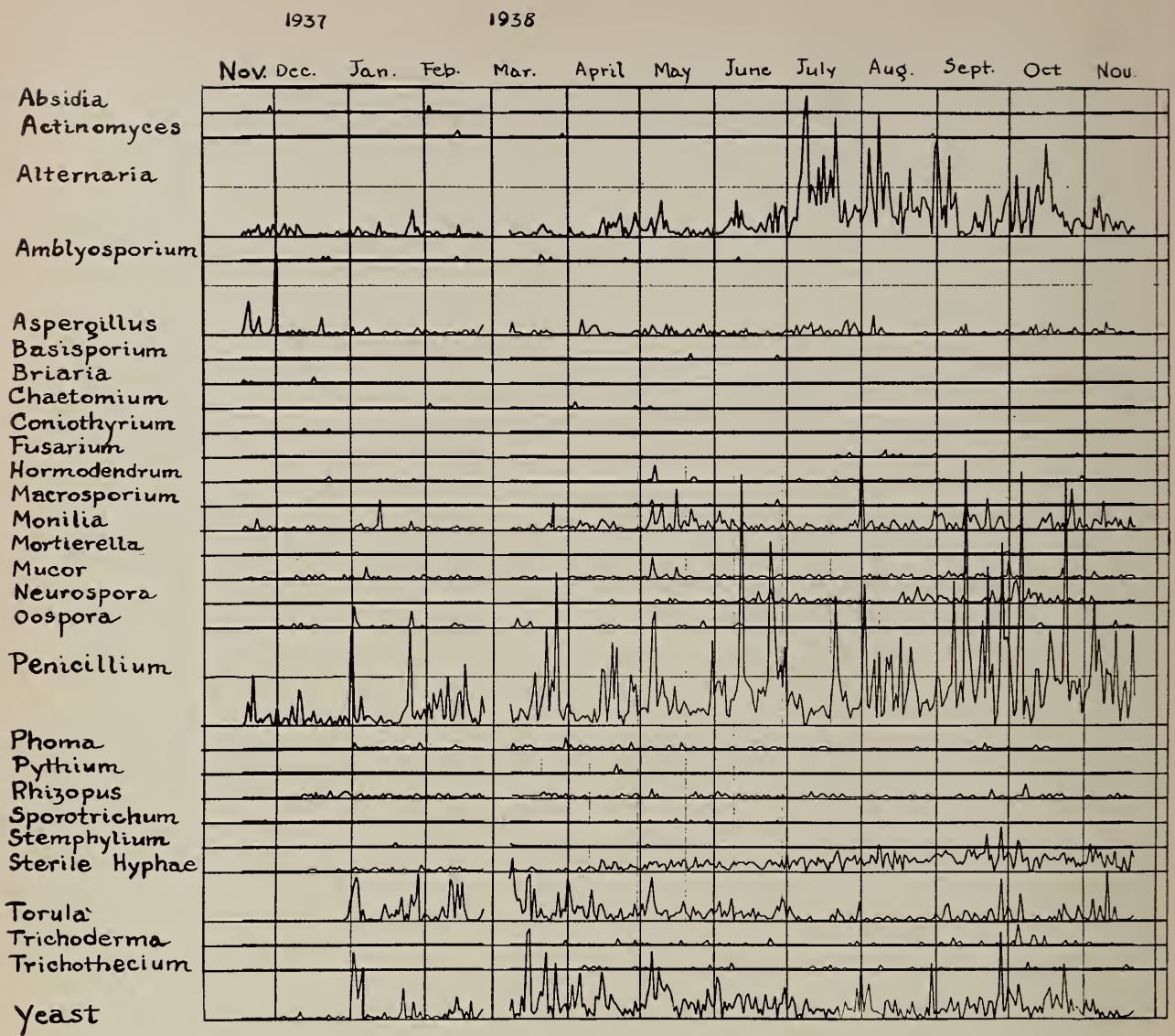


Fig. 1. Individual daily counts of fungus spores grown on the plates exposed. There was no count from February 20 through March 6, because of illness of A.B.A.

the original station throughout the whole duration of the survey. Other controls included simultaneous exposures at four buildings of different heights in Detroit. We also selected 23 different habitats for fungi throughout the city, namely such places as a bakery, butcher shop, pig pen, cow stable, chicken coop, library room, etc., where plates were exposed simultaneously. These controls[4], it is true, showed certain individual differences in the fungus flora at the different stations; but on the whole a definite pattern of distribution for certain fungi was recognized which tended to tally in all these exposures on certain days and at certain seasons. Precipitation and low barometric pressure tended to free the air temporarily from fungus spores. Inland winds, as well as high barometric pressure, increased the count. Continued freezing and subfreezing weather inhibited propagation of spores.[4]

Two questions are to be answered in this paper: Firstly, which are the most common fungi in Michigan, and secondly, are there fungus seasons in this area? The accompanying graph presents the distribution of the fungi encountered during the experimental period of one year.

Only a few fungi showed seasonal appearances, while the majority were present practically throughout the whole year. Among

the latter, Penicillium showed a marked predominance, some of the counts reaching 138 colonies during the half-hour exposure. Two other forms which we consider rather significant clinically are yeasts and Torula. The highest counts of yeast and Torula were obtained at the time when relatively few spores of other genera were present in the air, namely, from December to March. Aspergillus, which some believe to be very abundant, gave relatively low counts throughout the period of the survey.

The two genera to which a "season" can be ascribed[1] are Alternaria and Monilia. But neither of these two fungi was completely absent for any length of time during the year. Alternaria was prevalent from July to October, while Monilia grew sparsely from November to March. In this respect the two outstanding seasonal fungi covered by this survey differ greatly from pollen which is completely absent when out of season.[5]

Among fungi which were quantitatively of minor importance in our survey, Hormondendrum and Macrospora showed a definite seasonal appearance from May to September, Neurospora from April to December, and of Trichoderma and Trichothecium from April to November. In evaluating the question of a fungus season one should recall that during the winter months considerably less spores are in the air than during the summer months. Therefore, the complete or partial absence of a certain fungus in winter should be discounted as being a characteristic feature of all molds.

Another group of fungi which unquestionably is more significant in allergy than is generally accepted at present, are rusts and smuts. They are not included here since they did not grow on our plates. However, exposures of vaseline coated slides carried out by Waldbott and Ascher[3] showed that in 1938 the peak of the rust season was in the early part of June, that of the smut season at and during the harvesting time. Smut was found in the air of Detroit as late as November. There are indications that the development of rust and smut depends largely upon the amount of moisture during the summer which favors their growth.

Since this survey has been made, numerous clinical observations on patients have been recorded which will be accumulated for a later publication.

Summary

A survey of the content of the air for fungus spores in Southern Michigan was carried out during a twelve-month period.[4] The colonies of each fungus grown from daily thirty-minute exposures were identified, counted, and presented graphically. Penicillium, yeasts, and Torula were most prevalent among the perennial fungi. Alternaria and Monilia were present throughout the year, but showed seasonal predominance, namely, from July to November, and May to November, respectively. Among fungi which appeared to be seasonal, but which gave only low counts at any time, were Hormodendrum, Macrospora, Neurospora, Trichothecium, and Trichoderma.

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ANNOUNCEMENT OF A STUDY TO EVALUATE ORIGINAL SEROLOGIC TESTS FOR SYPHILIS

More than five years ago the Committee on Evaluation of Serodiagnostic Tests for Syphilis, in coöperation with the United States Public Health Service, conducted a study to evaluate original serologic tests for syphilis or modifications thereof in the United States. The results of this study were published shortly after the investigation was completed.[1]

Consideration is now being given by the Committee to the organization of a second evaluation study of original serologic tests for syphilis or modifications thereof within the next year. If the need for an investigation of this kind seems to justify the cost, invitations will be extended to the authors of such serologic tests who reside in the United States, or who may be able to participate by the designation of a serologist who will represent them in this country. The second evaluation study will be conducted utilizing methods comparable to those employed in the first study.[2]

Serologists who have an original serologic test for syphilis or an original modification thereof and who desire to participate in the second evaluation study should submit their applications not later than October 1, 1940. The applications must be accompanied by a complete description of the technic of the author's serologic test or modification. All correspondence should be directed to the Surgeon General, United States Public Health Service, Washington, D. C.

[1]Ven. Dis. Inform., Washington. June, 1935, 16:189. J.A.M.A., Chicago. June 8, 1935, 104:2083.
[2]J.A.M.A., Chicago. Dec. 1, 1934, 103:1705.

Addison's Disease

Recent Contributions to Treatment*

By W. O. Thompson, M.D.
Chicago, Illinois



W. O. Thompson, M.D.

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Until a few years ago, Addison's disease was invariably fatal. The duration in the majority of cases varied from six months to two years, the shortest on record being eighteen days. Patients rarely lived longer than four years. The situation has now completely changed and with adequate therapy, life may be greatly prolonged.

Two lines of development have been responsible for this improvement. First, something has been learned about the nature of chemical alterations in the disease;[3,4] and, second, active therapeutic agents have been developed. The demonstration of the low concentration of sodium in serum and its increased excretion in the urine led to a trial of sodium salts with brilliant therapeutic results. Since the isolation by Rogoff and Stewart[6] of an extract capable of maintaining the lives of adrenalectomized dogs, many extracts of variable potency have been prepared. It is only in the past few years that commercial extracts of consistent potency have been available. Recently a synthetic compound, desoxycorticosterone acetate, has become available and may offer some promise. Unfortunately, in many reports in the literature the administration of sodium salts has been combined with that of cortical extracts or of desoxycorticosterone, and it is frequently difficult or impossible to determine which produced the beneficial result. The only real proof of the efficacy of an extract or of a synthetic substance is its ability to maintain patients with Addison's disease for long periods of time without any other form of therapy.[9]

Materials Used

We have used two cortical extracts:

1. The extract of the Wilson Laboratories†, each cubic centimeter of which represents 75 grams of fresh beef adrenal. Our experience with this extract covers a period of more than four and a half years and there is no doubt about its potency.

2. The extract of the Armour Laboratories.** We have used this extract during the past year and it appears to be potent. The relative effectiveness of the two extracts has not yet been determined.

Most of our observations with desoxycorticosterone acetate have been made with the product of the Schering Corporation which has been supplied to us in generous quantities.†† We have also had a very limited quantity of the Ciba product.§

Treatment of a Crisis

Addison's disease, when untreated, runs a gradual or rapid downhill course, spontaneous crises and remissions commonly alternating with one another until the patient finally dies in a crisis. It is commonly in a crisis that the patient first enters the hospital and the treatment of this condition is, therefore, of great importance. A crisis is characterized by nausea and vomiting, marked weakness and prostration, fever, often pain in the epigastric, lumbar, dorsal or precordial regions and occasionally diarrhea.

Irritability, mental wandering and faulty memory are often present. There is an accentuation of all the abnormal findings in the blood of which the most important is a reduction in the concentration of sodium. Other changes which have some therapeutic significance are a moderate increase in the concentration of potassium in serum and a decrease in the concentration of sugar (variable). There is a marked reduction in the systolic, diastolic and pulse pressures which in the terminal stages can not be obtained, and there is an increase in the intensity of pigmen-

*From the Department of Medicine, Rush Medical College of the University of Chicago, and the Presbyterian Hospital, Chicago, Illinois. Read before the meeting of the Michigan State Medical Society, Grand Rapids, September 20, 1939.

†Kindly supplied by Dr. David Klein.
**Kindly supplied by Dr. Edwin F. Pike.
††Courtesy of Drs. Schwenk and Gilbert.
§Courtesy of Dr. Oppenheimer.

tation. The symptoms vary from patient to patient. Nausea and vomiting are the most constant although their extent varies markedly in different individuals. The development of nausea in any patient with Addison's disease represents an emergency. In rare instances diarrhea may be a symptom without nausea or vomiting. Sometimes the symptoms are bizarre as in the case of a 22-year-old man, who, during many of his crises, had complained of pain in the region of the lower sternum which radiated to both sides of the chest, was aggravated by respiration, accompanied by an increase in temperature to as high as 104.8° F., but no abnormal findings in his chest on physical examination or by roentgen ray. The pain and fever disappeared when his crisis was controlled. The condition of the patient in a crisis rapidly goes from bad to worse and treatment must be started at once. It consists of the following:[9]

1. Intravenous administration of 10 c.c. or more per hour of an active adrenal cortex extract. There is no danger at present of giving too much, but great danger of giving too little. In severe crises we have occasionally had to give as much as 40 c.c. per hour for the first two hours.

2. Intravenous administration of 5 per cent dextrose in normal salt at the rate of one liter in six hours. Fifty c.c. of 2.5 per cent sodium citrate may be added to one liter of fluid in each twenty-four hour period. If a fine needle is used, the cortical extract may be administered by the nurse through the rubber tubing used for intravenous administration.

3. Substitution of oral administration for intravenous administration of sodium salts as soon as they can be retained. Sodium citrate is very satisfactory for oral administration and may be given in a dose of 10 grs. every two or three hours until a maintenance program is worked out.

The use of large doses of extract is very important and accomplishes more than sodium salts alone. In the past many patients have received too little extract. A critical review of the data of patients who have died leads us to believe that in most instances their deaths were caused by an inadequate amount of extract. The disappearance of nausea with the treatment outlined above is striking and within twelve to twenty-four hours the patient can often retain food and sodium salts by mouth. In severe cases, however, nausea and vomiting may persist for several days. If the condition is detected sufficiently early, the patient may sometimes be revived by extract alone. As a rule from 30 to 40 c.c. given intravenously or subcutaneously at the rate of 10 c.c. every thirty to sixty minutes is sufficient for this purpose. If the patient cannot be revived with 40 c.c. of extract administered in this way, intravenous administration of fluid should be started at once. After vomiting has developed, it is usually, but not invariably, necessary to administer salt intravenously. If nausea and vomiting are marked, no attempt should be made to revive the patient with extract alone because of depletion of the sodium reserves of the body. Extract, sodium chloride and dextrose should all be started at once in the doses outlined. If treatment is started early the patient can usually be revived without difficulty, but the farther a crisis progresses the more difficult it is to do so, and when coma has set in the patient usually dies.

Maintenance Treatment

As nausea and vomiting disappear and appetite returns, the dose of extract is gradually reduced and the oral administration of sodium salts is substituted for intravenous administration, or their administration discontinued altogether if it is planned to treat the patient with extract or synthetic material alone. In the course of from two to fourteen days, the patient can usually be placed on a maintenance program which may involve any of the following procedures:

1. The subcutaneous administration of adrenal cortex extract in an adequate dose. The smallest dose with which we have been able to maintain any patient up to the present time is 10 c.c. daily and usually much more than this is necessary. An adequate dose is one which over a period of many months will prevent the development of crises. Our experience leads us to believe that many patients require from 30 to 50 c.c. daily to produce optimum results. The doses referred to apply to the product of the Wilson laboratories.

2. By the subcutaneous administration in oil or in pellets of desoxycorticosterone acetate (10-15 mgm. daily). As pointed out below, the sta-

tus of this synthetic material is still to be determined.

3. By the oral administration of sodium salts (12 Gm. sodium chloride and 4 Gm. of sodium citrate or bicarbonate daily).
4. By a combination of 1 and 3.
5. By a combination of 2 and 3.

It is of the greatest importance that the diet be high in calories and according to Wilder, et al,[13] and Allers and Kendall,[1] low in potassium. The weight of the patient is the single most important index of progress, loss of weight often preceding the appearance of a crisis. Failure to gain weight is a serious omen. Improvement in the nutritional state is not a matter of chance. The specific therapeutic measures outlined above can not be relied upon to produce enough increase in appetite to cause an adequate gain of weight. A diet should be outlined on which the patient will gain weight. A very simple way of increasing the caloric intake is by the addition of cream. Patients with Addison's disease are reported not to tolerate fat foods well, but they do not experience difficulty if an adequate dose of extract is administered.

The response of patients to treatment varies tremendously. Similarly, the effective dose of extract varies markedly from patient to patient. Some patients may be maintained for periods of many months with sodium salts alone with or without a low potassium diet. Such patients are not so energetic and usually do not gain as much weight as those receiving adequate doses of extract. Sooner or later in such patients the addition of extract is necessary for maintenance, and it appears probable that patients can not be maintained indefinitely with sodium salts alone.

In cases of economic stringency, large doses of sodium salts may be used and supplemented with small doses of cortical extract (5 c.c. daily) or of desoxycorticosterone acetate (5-10 mgm. daily). These measures are not as effective as adequate doses of extract. The only way in which maximum improvement can be produced is by the administration of large doses of extract. When the dose of extract is adequate, the addition of sodium salts in excess of those contained in the normal diet does not improve the clinical condition of the patient.

Oral Administration of Extract.—Thorn, et al, report adrenal cortex extract to be 40 per cent as effective in man when given orally in glycerin as when given intravenously,[11] and Grollman and Firor[2] have claimed satisfactory results from oral administration in animals. As a result of carefully controlled observations we have been forced to conclude that the extract is less than 20 per cent as effective by mouth. Since the cost per unit of material is approximately the same regardless of which method of administration is used, it must be concluded that at the present time oral administration is impractical, although desirable.

Desoxycorticosterone Acetate

A synthetic compound, desoxycorticosterone acetate, has recently attracted much attention. The preparation of this compound from stigmasterol was announced in 1937 by Steiger and Reichstein[8] and recently Reichstein and von Euw[5] have succeeded in obtaining desoxycorticosterone from an extract of beef adrenal, which would appear to confirm its natural occurence. It is possible that in the process of extraction of desoxycorticosterone most of the potency of the naturally occurring hormone is lost.

Desoxycorticosterone acetate is reported to maintain bilaterally adrenalectomized animals. It has been supplied in limited quantities to a few laboratories including our own and appears to produce some improvement in patients with Addison's disease. According to Levy Simpson[7], 1 mgm. is equivalent to 2 c.c., and according to Thorn[10], to 3 c.c. of adrenal cortex extract. In our hands, it has proved much less potent than this, 1 mgm. being equivalent to about 1 c.c. of Wilson's adrenal cortex extract, which was the extract Thorn used for assay. It has been supplied in sesame oil in a concentration of 5 mgm. per c.c. (Schering Corporation and Ciba Pharmaceutical Products). Our experience has been largely with the material of the Schering Corporation which is now made in this country although we have had some experience with the Ciba product which is still imported.

It would appear from our preliminary observations that some patients may be maintained in a fairly satisfactory state with the subcutaneous administration of 10-15 mgm. per day when not supplemented with sodium

salts. When supplemented with sodium salts (12 gm. sodium chloride plus 4 gm. sodium citrate daily), smaller doses may be adequate. However, conservatism must be exercised in drawing conclusions about the efficacy of this material.

In our experience, some patients cannot be maintained with any dose, as much as 30-40 mgm. per day proving ineffective. Complications of its use are edema which may be confined to the lower legs or be generalized, hypertension, cardiac failure and death. The edema resembles that sometimes observed following the administration of testosterone propionate and is probably caused in most instances by retention of sodium chloride.

Levy Simpson[7] and Thorn[12] have recommended the subcutaneous implantation of pellets each containing from 50 to 150 mgm. of desoxycorticosterone acetate. Because of relative insolubility of this material in body fluids, it is liberated at a very slow rate, which, according to Thorn, is about 0.3 mgm. per pellet per day. Thorn also states that this amount is equivalent to 0.5 mgm. injected subcutaneously in oil. At this rate, it would be necessary, according to our experience, to implant 30 or more pellets in some patients in order to maintain them without the supplementary administration of sodium salts. This seems like a great many pellets. It must be emphasized that the only real test of the efficacy of any product in the treatment of Addison's disease is its ability to substitute completely for the adrenal cortex.

According to Thorn[10] the effect of desoxycorticosterone acetate does not become evident for four hours and the effect of a single injection apparently lasts for at least twenty-four hours. The advantage of this type of action is that the daily dose may be given in a single subcutaneous injection. The disadvantage is that the effect does not begin quickly enough for the treatment of crises. The effect of adrenal cortex extract begins almost immediately after administration and it should, therefore, still be used in crises in the doses outlined although it may prove advantageous to supplement it with synthetic material. It is clearly established that the adrenal cortex influences several important functions of the body, but it is still not clearly established whether or not it produces more than one hormone. In particular it is still to be determined whether or not desoxycorticosterone is one of the hormones of the adrenal or merely a closely related compound, and if it should prove to be a hormone, it is still to be determined whether or not it is the only product in the gland that is necessary in the treatment of Addison's disease.

Moreover, the maintenance dose of this substance is still to be worked out accurately. It will take at least another year and probably longer to determine the precise therapeutic status of desoxycorticosterone acetate.

Basal Metabolism

In about two-thirds of our patients we have observed some depression of the basal metabolism varying from –16 per cent to –35 per cent. In one receiving large doses of extract the basal metabolic rate rose to within normal limits during treatment, but it is too early to state whether or not adequate treatment will always produce this effect. With the doses of extract we were able to administer to most of our patients some depression of the basal metabolism persisted. Correcting this by administering desiccated thyroid improved the clinical condition of the patient without aggravating the symptoms of Addison's disease in spite of reports in the literature that thyroxine may precipitate a crisis in adrenalectomized animals. In a medical student, whose basal metabolic rate was –35 per cent, typical myexedema developed. As a result his cerebration was so impaired that he was unable to pass the examinations in his final quarter until his basal metabolism had been raised to normal with desiccated thyroid.

The Blood Pressure

When a patient is adequately treated and shows an increase in body weight to within normal limits, the blood pressure usually rises to normal. However, the increase in blood pressure appears to be related to the nutritional state of the individual as well as to the function of the adrenal cortex. Regardless of the dose of cortical extract used, it may remain low until the body weight rises above a certain level. A mild crisis may develop and disappear with treatment without any significant change in blood pressure. A patient may recover from a moderately, severe

crisis some time before any rise in blood pressure is noted.

Infections

Patients with Addison's disease appear to be more susceptible to infections than normal individuals and the presence of an infection appears to increase the requirement for cortical extract. Two main types of infection are encountered, viz., upper respiratory infections and tuberculosis. Sometimes a crisis is confused with an upper respiratory infection. A febrile reaction is characteristic of both and a crisis may be precipitated by an upper respiratory infection. When an upper respiratory infection develops, an emergency must always be considered to exist and the dose of cortical extract or synthetic material increased. When tuberculosis is present, larger doses of cortical extract are necessary than in its absence and without adequate treatment it is impossible to improve the nutritional state sufficiently to combat the infection. With adequate treatment it may be possible to arrest pulmonary tuberculosis.[9]

Operations

Every added stress and strain presents a problem in patients with Addison's disease and in the past any operative procedure has presented an almost insurmountable difficulty. It would now appear that with adequate therapy, patients may be subjected to surgical procedures without serious reaction.

This is well illustrated by one of our patients who had the disease in a severe form. She developed a typical attack of acute appendicitis the day before we had planned to discharge her after a long period of hospitalization. Her maintenance dose had been determined to be 20 c.c. of Wilson's adrenal cortex extract daily. In the hour preceding operation an additional 50 c.c. of extract were administered intravenously in divided doses of 10 c.c. each, and in the postoperative period 5 c.c. every half hour for 30 hours after which the dose was gradually reduced until it reached a level of 20 c.c. daily by the seventh postoperative day. Her postoperative course was extremely mild and characterized by the absence of nausea and vomiting. In fact, it was milder than that of most patients without Addison's disease. It would appear that the large doses of extract employed were in part responsible for her uneventful postoperative course.

Present Status of Treatment

It would appear that with the use of large doses of adrenal cortical extract many patients with Addison's disease may now be maintained in satisfactory condition for many years. Even when active tuberculosis is present, it may sometimes be arrested with adequate therapy. There is some question, however, whether patients can be maintained indefinitely with desoxycorticosterone acetate with or without supplementary administration of sodium salts. Many reports in the literature are over-enthusiastic about the efficacy of small doses of adrenal cortex extract and of desoxycorticosterone acetate.

The cost of treatment is relatively enormous, the smallest effective dose of extract representing a yearly outlay of about $1,200. One of our patients gets about $7,500 worth of material per year. Desoxycorticosterone acetate has so far not reduced the cost of treatment greatly.

Because of the tendency of crises to develop in patients with Addison's disease and their rapidly fatal outcome in some instances if untreated, every patient with the disease should be within easy reach of a physician who has special knowledge of the disease and the facilities for treating it. They should exercise great caution during infections, periods of travel and very hot weather.

Summary

With large doses of adrenal cortex extract (10-50 c.c. daily) many patients with Addison's disease may be maintained in a satisfactory condition for long periods of time. Even tuberculosis may be arrested with adequate therapy.

Initial reports on desoxycorticosterone acetate are over-enthusiastic. Its precise clinical status is still to be determined.

In evaluating therapeutic agents it is important to use only one at a time, to observe the effect of each one for a long period of time, and to take into consideration the natural history of the disease.

In the treatment of a crisis, it is of the greatest importance to begin treatment at once and to

use adequate doses of extract (10 c.c. or more per hour) as well as suitable fluid intravenously.

It is still uncertain whether or not desoxycorticosterone is of value in crises.

Oral administration of the extract is impractical at the present time because of the enormous doses required.

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AMERICAN COLLEGE OF PHYSICIANS

The Twenty-Fifth Annual Session of the American College of Physicians will be held in Boston, with general headquarters at the Statler Hotel, April 21-25, 1941.

Dr. James D. Bruce of Ann Arbor, Michigan, is president of the college and will have charge of the program of general scientific sessions. Dr. William B. Breed of Boston has been appointed general chairman of the session, and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools and of the program of panel and round table discussions to be conducted at the headquarters.

Brill's Disease

Report of a Case

By Dan M. Gordon, M.D.
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Brill's disease, or endemic typhus fever, is one of the rickettsial disease group, which includes[3]:

(1) Typhus fever (which is louse or flea borne)

(2) Typhus-like fevers (tick borne, including Rocky Mountain spotted fever)

(3) Tsutsugamushi disease (mite borne)

(4) Reduviid scarlatinosis (transmitted by Reduviidæ).

Typhus fever is an acute infectious disease, which is seen in both the endemic and epidemic forms. In the latter it is thought to be transmitted by the body louse. In this form it has been among the causes of many of the greatest plagues; being associated with massings of peoples in cities, trenches, prisons, ships, et cetera.

It is much milder in the endemic form, known as Brill's disease after Nathan Brill who described sporadic cases in New York in 1910. The endemic variety is thought to be due to transmission by the rat flea. The causative organism is now definitely said to be the Rickettsia prowazeki, first noted by Ricketts in 1910 in lice infected with Mexican typhus. While the mortality in the epidemic form has varied from 5 to 70 per cent, it is found to be from 0 to 4 per cent in Brill's disease. Frant[5] reported four deaths in eighty-two cases in New York city between 1932 and 1936. All occurred in persons over the age of fifty.

Grossly, there is no distinctive pathologic change observable at autopsy. The pathology is concerned with the peripheral vascular system, for the most part. "Proliferative lesions of the small blood vessels are found, both at the sites of the rash and in the skeletal muscles.[3]" Frequently mural thrombi are found here and may cause skin necrosis. A dis-

tinctive perivascular infiltration occurs in the skin producing the so called "typhus nodules" of Fraenkel.[7] In Wolbach's series of post-mortem examinations at Warsaw in 1920 small lesions were found in the brain and spinal cord. These were tubercle like, proliferative and composed mostly of neuroglia cells and mononuclear cells.

Symptoms

The disease usually starts abruptly with chills, fever and headache. This latter is a constant feature. There is marked prostration and frequently neuromuscular and back pains. The fever is high, spiking and remittant, with a proportionately high pulse. The face is flushed. In Blatteis' series of 138 cases the spleen was palpable in 28 per cent and the white blood count ranged from 5,000 to 18,000.

There is a typical macular eruption which appears between the fourth and seventh days in 97 per cent, and which usually does not last more than three days. It is seen at the base of the neck, on the chest, back, abdomen and extremities. It is pink at first, later becoming deeper in color; then purplish red and finally brownish red. It never appears in crops and seldom disappears entirely on pressure. The disease cannot be recognized until the rash appears. Confirmation is obtained by the Felix-Weil reaction. This agglutination is quite constant but does not appear before the rash. Hence it is of no aid before that stage. Standard cultures designated as X-19 are used for doing this agglutination.

The fever is usually highest for five to ten days, with remission usually occurring by the tenth to twelfth day. An important sign in prognosis is the severity of the mental symptoms and the complications. The mental and nervous symptoms are quite striking and may simulate some of the acute cerebrospinal diseases. In some these become worse regardless of the fall in temperature and delirium and coma may ensue. In these cases the rash may remain and become increasingly hemorrhagic.

Bronchitis and Bronchopneumonia are the most feared complications and are the chief cause of mortality. The parotid and submaxillary glands are frequently infected. The thrombi may extend to the larger vessels and cause considerable difficulty.

There have been but three cases reported in Michigan during the period from 1934 to 1938.[4] There were two in 1936 and one in 1938. One of the former, which was confirmed by the Detroit Department of Health is here presented.

The patient was a white woman, aged forty-two, who was first seen at home on September 11, 1936. At this time the only complaint was that of severe frontal headache, bursting in character, of one day's duration. The only physical finding at this time was a temperature of 104. This state continued for eight days at which time she was hospitalized.

At admission she complained of pain, in the flanks and buttocks, which seemed to drag her to the floor. Her headache was severe, and there was a burning sensation under the skin of the face. She now had a diarrhea. There was a diffuse pink petecheal rash over the chest and abdomen.

She had been at a lake resort from June to September and had not felt "quite right" on her return. She had also just had a visit from a relative in New York. No other members of the immediate family were ill. The past history was non-contributory.

Course in the hospitals: The patient continued quite ill, restless and very sensitive to the touch. She was occasionally stuporous and moaned a great deal. She began to develop paranoid symptoms, and accused the nurses of trying to end her life, et cetera. Later, she had no recollection of these mental disturbances. The skin was hot and dry to the touch. The rash extended over the buttocks, chest and abdomen. The tongue was coated and the teeth dirty. Blood pressure was 106 systolic; 70 diastolic. By September 21 the rash had largely faded, although the fever still ranged from 102 to 104. She was still somewhat stuporous. There were some coarse râles at the lung bases. The spleen was not palpable. By September 24 the rash had disappeared, and the temperature was down to normal. Three days later she developed an abscess at a hypodermic site on her left arm. This was opened and drained.

Laboratory: September 15—Hb., 86 per cent; index .97; rbc 4; 420,000; wbc 6,000. Urine amber, acid, sp. g 1010. alb. tr. Microscopic—few coarse granular casts and 4 wbc per high powered field. Kahn neg. Agglutinations neg. to B. Typhosus, Para A and Para B.

September 16—Wbc 6400.

September 18—Rbc 4,780,000; wbc 16,000. Four urine examinations negative for findings. NCN 39.9. Sugar 0.117, Kahn neg.

September 21—Blood culture neg. after five days. Mellitensis pos. 1:500, Widal—B. Typhosus, and Para A neg. Para B positive 1:80. Agglutinations for B. Dysentery; Shiga neg. Hiss and Flexner positive through 1:160.

September 24—0.1 Brucine intradermal neg.

October 1—B. of H. reports Proteus x 19 positive in 1:1000 dilutions, confirming the diagnosis.

Treatment—As there is no specific treatment for this condition, the patient was treated symptomatically.

Summary

A case of endemic typhus fever with some pertinent remarks on the diagnosis of this disease has been presented. The source of transmission of the disease to this patient remains undiscovered. The occurence of isolated cases of typhus fever without mortality, indicates that the condition is frequently undiagnosed. It should always be borne in mind in treating diseases of obscure etiology associated with high fevers.

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Ophthalmology

Recent Advances*

By Sanford R. Gifford, M.D.

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■ By RECENT advances I take my subject to mean advances made chiefly within the last ten years.

Among them I might mention biochemical studies of the crystalline lens by Müller, Krause, Salit and our group at Northwestern; the use of orthoptic training in the treatment of squint; various measures which have made the intra-capsular operation for cataract safe and practical; the experimental production of progressive exophthalmos by anterior lobe pituitary extract given to thyroidectomized animals by Smelzer; Naffziger's decompression of the orbit for progressive exophthalmos; the invention and application of contact glasses and a more logical classification of fundus changes seen in hypertension and nephritis. I shall discuss none of these subjects, however, but shall limit myself to three other advances which I consider important, and of which I have some personal knowledge.

It is pleasant to be able to say that in all of these subjects American ophthalmologists have made important contributions, and that in at least two of them, these have been the most important.

Trachoma

A good deal of work had been done on the etiology of trachoma prior to the last ten years. Halberstaedter and Prowazek had described in 1907 peculiar bodies in the epithelial cells which they considered to be a parasite and the cause of trachoma. Lindner, Axenfeld, and others had studied these bodies, which they found present not only in trachoma but in non-gonorrheal conjunctivitis of the new-born. It was the finding of these bodies in diseases other than trachoma and the difficulties of finding them in old cases of trachoma which led many ophthalmologists to doubt their etiologic importance. Cuenod and others succeeded in producing trachoma by bacteria-free filtrates, and there was a growing tendency to disregard the findings of Halberstaedter and Prowazek.

Virus Infection.—In about 1932 Phillips Thygeson began to work on the subject of trachoma at the University of Iowa. He first made himself familiar with the cytologic findings in other virus diseases and noted the resemblance of the Halberstaedter-Prowazek bodies to those found in psittacosis. He learned that the agents of certain virus diseases, because of the size of their particles, will not pass ordinary Berkfeld filters, or will do so only when present in extraordinary quantities. They will pass, however, through collodion filters of a certain pore-size made by the Elford method, which are not permeable to bacteria. With these filters he studied material from non-gonorrheal ophthalmia of the newborn and from trachoma, both containing epithelial inclusions and the free forms of the same

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nature found outside of the cells which are known as elementary bodies (Fig. 1). Material from non-gonorrheal ophthalmia of the newborn contains many more of these bodies than does material from trachoma, hence it has been called inclusion blennorrhea. In filtrates of such material numerous elementary bodies could be found, but no bacteria and with such filtrates he was able to produce an identical disease in sphinx-baboons and in human volunteers, including himself. Inclusions could be found in scrapings from the inoculated volunteers. Examination of Thygeson's own conjunctiva and of his slides convinced me that he was right in his conclusion. This was that the elementary bodies found in inclusion blennorrhea represent the active form of a virus which passes Elford filters. Dr. Tilden and I were able to confirm Thygeson's experiment fully with regard to inclusion blenorrhea, finding inclusion bodies on the conjunctiva of sphinx-baboons inoculated with Elford filtrates of our material.

Thygeson went on to similar filtration experiments with trachoma, which were equally successful on the conjunctiva of the baboon and at least one human volunteer, Dr. Richards. Dr. Tilden and I have failed to reproduce these results with trachoma, but this is to be explained by the fact that our material did not contain large numbers of inclusion bodies.

In view of Thygeson's work, there seems to be no doubt that the inclusion and elementary bodies are elements of a virus. The virus which produces trachoma is identical in morphology with that which produces inclusion conjunctivitis, but each virus produces only its own specific disease.

They may be compared to the viruses of variola and vaccinia. More work has been done on trachoma, and an effort has been made by Cuenod and Nataf and by Busacca to identify the virus of trachoma with the Rickettsia group, of which the viruses of typhus and Rocky Mountain fever are members. It cannot be said that their evidence is conclusive. No practical deductions bearing on the treatment of trachoma have, as yet, come out of Thygeson's work, but it must be considered, certainly, as one of the most important recent advances in ophthalmology.

Detachment of the Retina

Detachment of the retina has always been one of the bugbears of Ophthalmology. True idiopathic detachment was practically uninfluenced by treatment, almost never healed spontaneously and since it often affected both eyes, especially in persons with myopia, was a not uncommon cause of blindness. Jules Gonin, Professor in the little university of Lausanne, Switzerland, became convinced in 1904 that small holes or tears in the retina occurring as the result of cystic degeneration or of trauma, were the cause of retinal detachment. As he conceived it, such holes allowed the vitreous to collect beneath the retina and separate it from the choroid. He found such holes in nearly all cases of idiopathic detachment in which the entire retina could be seen.

The idea had been suggested before, but it remained for Gonin to prove it by an operation designed to close the retinal hole, or to seal its edges to the choroid by scar tissue. His first operations were reported in 1919 and by 1931 he had collected three hundred cases, with healing of the detachment in 66 per cent of cases operated upon within the first three months of the detachment.

What he did was to localize the hole carefully, penetrate the sclera and choroid in the region corresponding to the hole and insert the tip of a red-hot paquelin cautery in the scleral opening. When only one hole was present and localization was successful, a scar resulted which sealed down the edges of the tear. Part of the sub-retinal fluid was drained through the scleral opening and the rest was absorbed by the choroidal vessels. If the detachment had not existed too long, vision returned in the previously detached area, and if the macula had not been involved, was often normal or nearly normal.

There were certain objections to Gonin's original method. As he told me himself, when the holes were very large, or when the retina was detached at the periphery, it was easy to localize the hole, but not easy to close it. There were many cases, also, with more than one hole, only one of which could be closed by Gonin's operation. The use of electrocoagulation naturally occurred to a number

of ophthalmologists. Larssen and Weve employed large electrodes for coagulation applied to the sclera over the detached area. But this was often unsuccessful in producing the desired adhesive exudate on the surface of the choroid. Weve then employed needle electrodes with which the inside of the eye was submitted to coagulation. But each puncture allowed fluid to escape from the eye which became so soft that further punctures were dangerous or impossible.

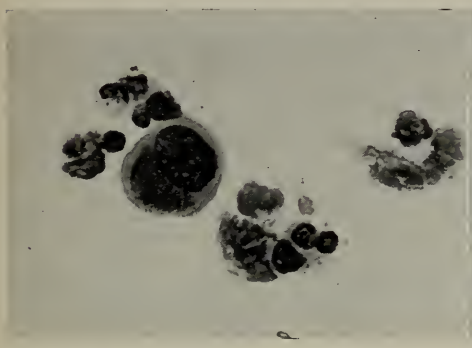


Fig. 1. Inclusion blennorhea.

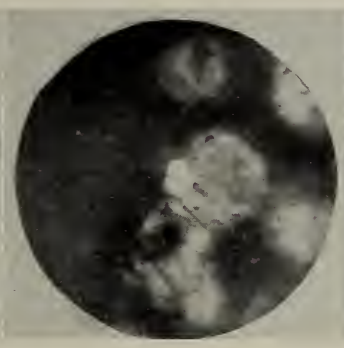


Fig. 2. Scars of coagulation.



Fig. 3. Result of corneal graft following burn.

Safar of Vienna, and Walker of Los Angeles, about 1932 to 1934, devised small pointed electrodes which were left in the sclera after each coagulation until the whole area surrounding the hole and in some cases the area of detachment, was covered with areas of coagulation, when all the electrodes were removed. This method is the one now generally employed, with the addition, in certain cases, of electrolysis with current of low voltage but high frequency delivered by the very fine needles of Vogt or Walker. With this method results are good in from 50 to 75 per cent of cases, which means that the detachment is healed and vision returns in the affected area.

Vision is best in cases operated upon early, before the macula has become detached. When it has been detached for only one or two weeks or possibly even a few days, central vision remains poor but the peripheral field is good and with vision of 20/200 or 20/100 patients are able to do many kinds of work. There are certain conditions which make the prognosis unfavorable. If the detachment has been allowed to go for longer than six months the chance of a good result is poor, especially if more than two-thirds of the retina has become detached. After one year the chance is usually so slight that operation is not justified. Pischel reports two successful cases which had existed longer than this, but most of us have not been so fortunate. My oldest case with a successful result was in a young man of twenty-four in whom both eyes had been involved for about nine months. In one eye the first operation was successful, vision being 20/25. In the other eye recurrences took place after two operations but the third was successful with vision of 20/50. The result has remained good in both eyes with 20/20 and 20/25 twenty-four months after operation (Fig. 2). When the hole is very large, with the edges curled far over upon themselves or when, as in two cases I have seen, the upper half of the retina has fallen down over the lower half, there is little or no chance of a good result. In persons past the age of sixty-five, for some reason, the reaction following coagulation may not produce enough adhesive exudate to close the hole and in such cases the result is often disappointing when other circumstances appear favorable. The same is true in cases of very high myopia, where also multiple holes are apt to be present. I recently had a recurrence in such a case a year after successful operation on the only remaining eye, due to a second hole having developed on the opposite side of the retina.

It may be stated that in persons past the age of sixty-five in whom the other eye is normal it is often well to advise against opera-

tion, while when the only good eye is affected, one has no choice but to advise operation except under especially unfavorable conditions.

In a series of thirty-three cases results were about the same as that of most experienced operators, 48 per cent of all cases operated upon and 60 per cent in those operated upon within the first three months being healed. They have been about the same in a larger number operated upon since this report. The disappointments, when they occur, are sometimes heart-breaking, when the only remaining eye is involved. I have a patient now, a girl of twenty-eight, with very high myopia and multiple holes appearing after every operation, whom I wish I had never seen and who undoubtedly reciprocates the feeling. But the good results are worth it, and occur often enough so that an operation for retinal detachment must be considered the greatest practical advance in ophthalmology since the first filtering operation for glaucoma was performed by LaGrange in 1906.

If operation is to be advised it should be performed at the earliest possible moment, many persons having lost their only chance by prolonged trial of bed-rest, sweats, salt injections and other obsolete and ineffective methods.

Corneal Grafts

Keratoplasty, or restoration of vision to eyes with dense corneal scars by grafts of normal cornea, has been for many years a dream of ophthalmologists. For many years it remained a dream, since grafts of the cornea from animals always became opaque, and grafts of the whole cornea, although remaining fairly clear in a few cases, were followed by glaucoma and loss of the eye. von Hippel devised a spring-driven trephine cutting discs 5 mm. in diameter with which only the central portion of the cornea, including the scar, was removed and replaced by an exactly similar disc from another human eye enucleated for disease not affecting the cornea. With this instrument Ascher and Elschnig of Prague, Friede of Jägersdorf and a few others had reported a number of successful grafts prior to 1925. Doubts of the possibility of success were natural because of the behavior of heterografts in other parts of the body. Skin grafts, for example, will grow on other parts of a person's body, but not when placed on another person where they are absorbed and replaced by scar tissue. Conditions are different, however, in the cornea which has no direct blood supply but is nourished by lymph from the surrounding sclera and conjunctiva. The epithelium of a corneal graft is cast off and replaced by growth of epithelium from the surrounding cornea of the host. Its stroma, however, when circumstances are favorable, remains relatively clear and is nourished through its pre-existing lymph spaces by those of the host so that it remains clear These requirements of circumstances are exceedingly exacting, however, and it is not surprising that many ophthalmologists obtained failures with the method and abandoned it. In recent years the work of Tudor Thomas in England, Filatow in Odessa and Castroviejo in New York has conquered certain technical difficulties and has increased the percentage of successful grafts to such a point that keratoplasty must now be considered an operation of practical importance. Thomas employed the method of trephining, but used a trephine 2/10 mm. larger for the opening in the host's cornea than that employed for the graft, since the opening became smaller when the aqueous was allowed to escape. He devised a special method of suturing to hold the disc in place.

Filatov devised a special trephine with a blade to protect the lens from injury, and found that the cornea of cadavers, when preserved at 5° C could be successfully employed several days after death. Instead of sutures, he employs an everted flap of conjunctiva to retain the graft in place. He has certainly performed more keratoplasties than anyone in the world (205 between 1923 and 1936), and in his last paper reports 70 per cent of clear grafts in favorable cases.

Castroviejo since 1931 has developed an entirely new method of making the graft, somewhat similar to one used by Ebeling and Carrel for experimental purposes, but different in details. The square graft is partially cut by parallel knife-blades in a holder, the

cuts being finished by special scissors and keratome. It is held in place by sutures placed in the cornea itself. He has employed the cornea of still-born infants with success, and insists that the cornea used for the graft must in any case be entirely free from disease and not taken from such eyes as those removed for chronic glaucoma. The eye of the donor, if a clear graft is to be expected, must be free from adhesions of iris and must present some clear cornea in the area which is to surround the graft In other words, eyes with totally opaque and vascular corneas are not suitable for the usual graft, while eyes with a central scar surrounded by clear cornea are ideal. Eyes with scars of interstitial keratitis most frequently present the desired conditions. Almost equally favorable are eyes with blood-staining and extreme keratoconus. Healing of the graft may be expected in all cases with this method and where conditions are favorable a clear graft permitting useful vision may be expected in 50 per cent of cases. (Later reports indicate 75 per cent in favorable cases.) The technic is exacting as the lens must not be wounded and the graft must fit perfectly, It requires previous practice on animal eyes. I have seen some of Castroviejo's grafts and his slides showing clear grafts permitting vision of 20/20 to 20/40. In other cases vision was considerably less, but much better than before operation. I have seen clear grafts in the clinic of Imré in Budapest and another in the Elschnig clinic at Prague. My own experience has been relatively small. I have employed the trephining method with Filatov's flap and later with corneal sutures. All my few grafts (about fifteen) have healed in place but some were performed on unfavorable cases, so that the visual results were not comparable to those of Castroviejo and Filatov. My best result, shown in Figure 3, was in a case of corneal burn with vision of 5/200 one year after the burn but before the Keratoplasty. The cornea of an infant dying at the age of five days was employed for the graft. Vision is 20/50 and is still improving. The method which we have found most practical is one devised by Castroviejo. It is much simpler than his square graft which latter method Castroviejo prefers in most cases. Castroviejo's trephine is employed, embodying a plunger through which a thread can be placed. This thread, with which a bite has been taken into the central area of cornea to be removed from the host, is used for making traction on

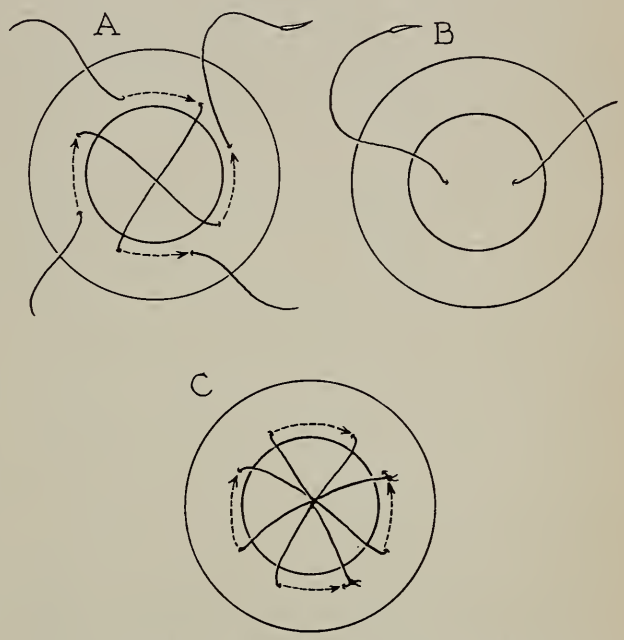


Fig. 4. Sutures for keratoplasty with the Castroviejo trephine.

the disc which prevents the lens from being injured. When the trephine penetrates, as it often does, before the disc is completely cut, the trephine is removed, sparing the thread, and traction is continued until removal of the disc with scissors is complete. The disc is held in place by two fine corneal sutures placed before the disc is cut (Fig. 4). Keratoplasty, while capable of producing some dramatic results, requires a much more complicated combination of circumstances and technic than the operation for retinal detachment.

It is not one which will be performed, at least for the present, by a large number of ophthalmologists. It does represent a definite advance in surgery, however, and will undoubtedly be performed more frequently in ophthalmologic centers in the future, since it offers the only hope of improvement in certain cases. The reason one hesitates to even mention keratoplasty is that uninformed lay persons grasp at the idea as a cure for all kinds of blindness.

The operation is confused with grafting of the whole eye, which of course, has been performed

with success only in certain lower amphibians. In other words it is applicable only to certain patients, all of whom have already a normal posterior segment, with a certain amount of vision through a partially opaque cornea. This can often be improved by the operation and in some cases the improvement amounts to the difference between almost complete disability and useful vision.

I have tried to describe these recent contributions to the practice of ophthalmology in such a way that they may be compared with advances in other branches of medicine. There is no point in making the comparison too specific. But it does seem that enough has been done in our specialty during the last ten years to make it worth while continuing in it. There is still enough to be done to encourage young physicians with good minds who are interested in preparing for the specialty.

Thanks to some of the recently founded ophthalmological institutes it is now possible to obtain as good training in America as anywhere in the world. I feel that some of the Americans now being trained are destined to perform work in theoretical and practical fields in these institutions which will make the next ten years of ophthalmology as interesting as those which have just come to an end.

CURRENT COMMENT

"The physician who wants his son to succeed him is faced with the expense of a very expensive education over a ten-year period following high-school graduation. At some time during this period the handwriting on the wall indicates that the practice of medicine will be socialized. Thus, the reward for the father's financial burden and the son's long years of study will be the privilege of a political job, subject to political dictation, and with paltry remuneration.

"Not a very pretty picture, is it? How many physician-fathers will want it for their sons? It is true that a physician's greatest reward is the privilege of service and many hardy souls will move heaven and earth to secure this privilege regardless of its discouraging outlook, but many others who might have become great healers will be frightened off. There is an old bromide that it is darkest before the dawn. Let us pray that dawn is about to break."—F.C.S., writing on "What Shall We Do for Our Sons?" in the April issue of *The Medical World.*

Pregnant Diabetic Women

Pre-Natal and Post-Natal Care*

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Pre-Natal Care

■ HOWEVER mild the diabetic state may appear during pregnancy we must not make too light of it. Each patient requires individual care and adjustment of her diabetes. **We should not treat the pregnant diabetic woman as a member of a group but as an individual.** It would be unjustifiable to subject a mild diabetic to the rigid care of a severe diabetic because much harm may result from it either to the mother or fetus.

A diabetic woman found to be pregnant should be hospitalized at once for complete stabilization of her diabetes. This means a complete physical and laboratory examination and correction of any abnormalities to insure proper control of the patient's diabetes and a more favorable fetal and maternal outcome.

The diet should be adjusted not only to meet the demands of the mother with all of the essential nutritional factors but also to meet those of the developing fetus. The growing fetus takes from the maternal circulation essentials for its development.

Some investigators[5] are inclined to believe the utilization of maternal blood sugar or the hyperglycemia by the fetus is responsible for the improvement of tolerance that occurs in the latter part of pregnancy and in bringing about a large fetus. . However the utilization

*From an address before the General Assembly of the Michigan State Medical Society, Thursday, September 21, 1939.

by the growing fetus of the essential elements may be so great that the mother may be exposed to disturbances of vitamin deficiency as well as to loss of minerals and tissue reserves. The consequences of these losses or dietary deficiencies to the mother, may bring about certain of the toxemias associated with pregnancy and childbirth.[34] This means a diet rich in vitamins and minerals must be supplied.[25] We also feel a diet rich in carbohydrate will better insure the patient against ketosis by providing for the increase in metabolism during pregnancy, as well as for the child's (fetus') glycogen needs and the prevention of any tendency toward hypoglycemia.

A diet supplying 25 to 30 calories per kilogram of body-weight has been adequate to supply the body needs; thus one (1) gram of protein per kilogram of body weight with a moderate amount of fat and rich suply of carbohydrate. A ratio of carbohydrate to fat. 1.5:1 has been sufficient and in some instances of 2:1. A general average and safe diet has been 60 grams of protein; 80-90 grams of fat, and 150-180 grams of carbohydrate. We advocate an extra feeding, 15-20 grams of carbohydrate at a late evening meal or upon retiring. This is more or less a general habit among the non-diabetics and there is no reason why the diabetic should not have the same privilege. It means better cooperation on the part of the patient.

The blood sugar level should be maintained as near normal as possible. Of course the time interval is of paramount importance. In our group we obtained fasting and post-prandial (two hours after meals) blood sugars. Either one is repeated depending upon condition of patient as often as necessary to maintain the blood sugar level as near normal as possible. Recently we have placed more reliance upon the post-prandial blood sugar estimations.[26]

Ordinary insulin is administered to obtain the normal blood sugar level.[27] As to protamine zinc insulin we advocated it only in those patients requiring more than 40 units of plain insulin and seldom alone, because of the dangers of hypoglycemic reactions during the interval the patient does not eat her regular meal.

First Trimester.—However, during the first trimester, nausea and vomiting may prevent the patient from adhering to her regular prescribed diet and insulin. This of course increases the dangers of acidosis. Blood sugar, carbon-dioxide combining power of the blood plasma, and urea-nitrogen estimation should be done immediately to determine the chemical state of the patient. If acidosis develops, treatment should be given as in non-pregnant diabetic patients. Efforts should be made to alleviate the nausea and vomiting by supplying the carbohydrate portion of the diet in the form of liquid, as fruit juices or dextrose, disregarding temporarily the protein or fat content of the diet. If the patient is unable to take fluids by mouth, glucose intravenously should be given with the necessary ordinary insulin dose and the procedure repeated if the condition warrants. When nausea and vomiting cease, feeding by mouth the regular prescribed diet should be attempted, with the insulin governed by the level of the blood sugar.

While the patient is being stabilized for her diabetes during the first trimester, a careful examination should be made for foci of infection and their immediate care when found. Special search should be made for focal infection in the teeth, skin, as well as the genito-urinary tract.

The cardio-vascular system and the gastro-intestinal tracts as well should be carefully examined for any abnormalities. Bear in mind that the nearer to normal the patient's carbohydrate metabolism the better the outlook for the fetus and mother. Also that toxemia and eclampsia are 50 times more prevalent in the pregnant diabetic than in the pregnant non-diabetic.[23]

Second Trimester.—During the second trimester there is generally little or no change in the diet or insulin dose. However we must not put too much reliance in generalities. I am a firm believer in frequent blood sugar estimations (post-prandially and fasting) if necessary—at least every three to four weeks, during which time an opportunity is given for general examination of the patient's diet, complaints and physical condition. It is only through this procedure that we are able to detect insidious blood sugar rise or acidosis.

Third Trimester.—During the third trimester a change of tolerance may be noted. In this

period great care should be exercised in the dose of insulin because improvement in carbohydrate tolerance may occur and subject the patient to hypoglycemic reactions. It is not uncommon to find a lowered renal threshold during this trimester which may be misleading if urine sugar examination is solely depended upon in treatment. However, we may have in this interval decreased tolerance or factors inducive to acidosis as increased metabolism, reduced alkali reserve and glycogen store which require increase in insulin dose.

Some clinicians are of the opinion that the growing or developing fetus during the latter months of pregnancy creates a daily extra demand for carbohydrate, and advocate at least 50 grams daily in the patient's diet. This of course depends upon the individual case. However, we have been able to maintain most of our patients upon the same diet throughout the pregnancy period. We cannot too strongly advocate the necessity of careful observation for change of carbohydrate tolerance, signs of toxemia or eclampsia. Smith and Smith's[29] observations of the prolan-estrin imbalance typical of toxemia between five to seven months, is of interest in implicating the pituitary. They have been able to observe this imbalance 6 weeks before the clinical manifestation of toxemia.

Labor

At the onset of labor the patient's diabetes should be well stabilized, for labor may give rise to certain complicating problems, *i.e.,* (1) prolonged labors whether normal or induced, may cause serious disturbances to the mother as well as fetus; (2) acidosis or coma, because of the tendency to glycogen reserve depletion in providing carbohydrate necessary for the energy of labor.

Choice of Delivery.—The method of choice of delivery of the diabetic pregnant woman is of course dependent upon the state of the diabetes as well as upon the judgment of the obstetrician. The obstetrician should not take the whole responsibility, he should work with the internist. If the patient is allowed to deliver spontaneously or possibly by labor induced prematurely, the carbohydrate portion of the diet should be given in the form of milk or orange juice by mouth or dextrose intravenously with the necessary dose of insulin. The purpose of course is to help avoid acidosis by increasing the glycogen reserve of the patient.

Cesarean Section.—There has been much controversy concerning the delivery of the pregnant diabetic woman by Cesarean section. Some physicians feel that neonatal mortality rate will be lowered by Cesarean operation and advocate it in all deliveries as soon as the baby is viable. Advocates of Cesarean section describe a gloomy outlook in labor for the pregnant diabetic woman —(1) extra burden of pregnancy, (2) mechanical strain of labor, (3) large baby; (4) toxemia of pregnancy causing death of child as well as malformation; (5) the possibility of acidosis or coma; (6) and other possible serious pathological complications to mother or fetus. However, by Cesarean section around the 37th week this gloomy picture may be alleviated to a large extent and the woman's chances of having a live baby increased. As an internist I am not in favor of Cesarean section routinely in all cases of diabetes. With proper control of the diabetes even the severe ones have been carried to term for normal delivery, providing however, there is no disproportion between the size of the fetus and pelvis or existing complications.

If Cesarean section is decided upon, the same procedure of diabetic preparation as in any surgical operation, especially in supplying the carbohydrate portion of the diet should be advocated. The anesthetic of choice is spinal or nitrous oxide and oxygen.

Post-Natal Period

Carbohydrate Tolerance.—There are numerous conflicting explanations for the etiology of the increased tolerance or hypoglycemic states after delivery. Probably the work of Widmark and Carlens[36] has attracted much attention in which they claim the hypoglycemic state is analogous to milk-fever in cows. The condition is corrected by injection of glucose or by inflation of the mammary gland, thereby stopping the secretion of milk, and increasing the blood sugar—by preventing the withdrawal of circulating glucose by the mammary gland for the formation of lactose in the milk. Markowitz and Soskin's[15] experiments also substantiate the work of Widmark and Carlens. However Lambie[11] expresses doubt relative to lactation as the responsible factor in

causing hypoglycemia, because in one of his cases in which the hypoglycemia occurred the patient had very little milk in the breasts and never suckled the child. One of his explanations for the increased tolerance that may occur for a short while is the possibility of restoration of the carbohydrate reserve after their exhaustion by labor. This became evident he feels by the second week post-partum when a reduction of the tolerance occurred, greater than it had been since the 7th month of pregnancy.

In our studies we not infrequently found an increased carbohydrate tolerance of the mother within a few days after delivery. Thus in case of E. C. aged forty-one, who had eight pregnancies, five living children, diabetes developed one year after the fifth normal pregnancy, following a pelvic operation. Her blood sugar during the sixth pregnancy before delivery was 264 mg. per 100 c.c., the day following delivery it was 210, and within seven days it was 116 mg. per 100 c.c. This reduction occurred without the use of insulin. However, we occasionally found a decreased tolerance not only in different patients but also in the same patient during another pregnancy. In the above patient at a previous pregnancy she was admitted in premature labor. The blood sugar before delivery without insulin was 174 mg. per 100 c.c., two days after delivery it was 244, and twelve days after delivery it was 200.

However we have had patients upon insulin in whom it was necessary to reduce the insulin within the first few days of the puerperium in order to avoid hypoglycemic reactions. Skipper[28] also speaks of increased tolerance following delivery by noting insulin reaction in seventeen of the twenty-three patients who were receiving insulin at delivery. Enormous reduction in insulin dose was necessary to avoid a severe hypoglycemic reaction within a few days after delivery in a few of Lawrence's[12] cases.

Management of Puerperium.—Following delivery of a child a change in the carbohydrate tolerance may occur in the mother necessitating an increase or decrease of insulin dose. It is not infrequent to find that the glycosuria present during pregnancy disappears after labor, and misguides the physician into believing that the so-called "diabetes of pregnancy" has disappeared. However, the absence of glycosuria may result from the rise of the renal threshold. Our observations support that when diabetes exists during pregnancy it also persists later, even though in some instances urine sugar examinations gave no information as to the true state of the disturbed carbohydrate metabolism. We cannot too strongly advocate the value of frequent blood examinations following delivery. In the absence of complications we advocate blood sugar estimation for a period of a week or ten days, depending, however, upon the diabetic state. We must not overlook the dangers of sepsis that may occur as the result of prolonged labor or damage to cervix or perineum as well as the risk of acidosis.

Lactose or milk sugar in the urine usually occurs in the last weeks of pregnancy or during lactation. The amount in the urine is of no pathological significance and rarely exceeds one per cent. Great care must be exercised in differentiating lactose from dextrose since both reduce Benedict's and Fehling's solution. However, differentiation can be made by appropriate laboratory methods.

Carbohydrate diet after delivery should be liquid for the first twenty-four hours; then changed to solid according to the prescribed formula. Insulin must be judged by the blood sugar levels.

Infant mortality following delivery is high. Infant mortality is depended upon the control of the condition in the mother. One must realize that the child previously lived in utero under abnormal metabolic conditions. A newly born baby of a diabetic mother requires a little more time for its metabolism to re-adjust itself than a baby of a normal mother.

It is advisable if conditions warrant to make blood sugar estimation of all babies born of diabetic mothers. Hypoglycemia in the new born is to be feared, and for this reason many physicians advocate routinely glucose by mouth, or 5 c.c. of 10 per cent solution of dextrose given into each buttock,[21] its repetition depending upon the blood sugar level and condition of the child. We however advocate it only when indications arise, as convulsions or muscular twitching, vomiting or cyanosis.

Asphyxia may result from a state of failure of adaptation of the cardio-respiratory system

to extra uterine life.[32] According to statistics asphyxia causes 30% of child mortality. Stone[32] claims, asphyxia in most cases presents a reaction to abnormal conditions of late pregnancy or labor. In some instances to establish respirations, mechanical or cardio-respiratory stimulants may have to be employed. Placing the child in an incubator of oxygen has proved successful. Stone recommends 5 to 10 per cent CO_2 in oxygen.

A few physicians do not approve the diabetic mother nursing her child because of the possible danger to the mother's diabetes. However, Peckham,[18] Wilder and Parsons,[37] Skipper[28] and others see no apparent harm in lactation and advocate it, if the diabetes is adequately controlled. If the child loses weight artificial feeding may be resorted to. Improvement of the carbohydrate tolerance or diabetic state is occasionally observed in the mother when she nurses the child, probably by a conversion of the maternal circulating sugar to lactose in the breast. Great care should be exercised in the insulin dose during lactation since the improvement of tolerance or diabetes may not infrequently subject the mother to hypoglycemic reactions.

Weaning the Baby

The utmost care should be exercised in the management of the mother's diabetes when weaning the child. Probably the cessation of withdrawal of sugar from the maternal body to form the lactose of the milk may be a responsible factor for the increased hyperglycemia or acidosis that not infrequently occurs during weaning. **During this interval the mother's diabetes must be closely observed by frequent blood sugar examination.** This is more real than apparent when we realize two instances of breast fed babies, one of a mother aged twenty-four, following a normal delivery of a child over eight pounds, the mother nursed the child for a period of five months. At the end of this time, she was admitted to our metabolic ward in diabetic coma with a blood sugar of 1850 mg. per 100 c.c. and a carbon dioxide combining power of 13; however she recovered. Within a year after her coma incident she returned to our metabolic service and was delivered of a child weighing 4 pounds 1 ounce who is at present living and well. The other case was that of a woman aged twenty-seven years who within two weeks after nursing a child fifteen months, was brought to our metabolic ward in diabetic coma but soon recovered. She also returned at a later date to our metabolic service and was delivered of an 8¼ pound baby. The child is at present living and well.

Many advocates of sterility base their opinion upon the possible harmful effects of frequent pregnancies to the diabetic woman, as well as upon the increased likelihood of the offspring developing diabetes or being "hereditary carriers of the disease." We have had a few instances of diabetic mothers with no added damage to the disturbed carbohydrate metabolism after one or more still-births, miscarriages or even severe coma, giving birth to a child that survived, apparently normal.

Is sterilization their "cure" for diabetes—denying the woman her instinctive desire to have a child? I am of the opinion that if a diabetic woman wishes to have another child further harm will not follow if the diabetes is well controlled.

Summary

1. Fetal mortality has improved little since the pre insulin era in spite of modern care; though the maternal mortality has decreased.

2. Many of the diabetics who had diabetes in childhood now live as a result of insulin with improved endocrine functions. A few of these have been able to have living offspring.

3. Carbohydrate tolerance during pregnancy is variable, but in many instances it may be diminished during the early part and improved in the latter period.

(a) Fetal insulin may be a factor for the improvement, though many investigators are inclined to attribute it to the increased consumption of the maternal glucose by the fetus.

4. Close coöperation between the internist and the obstetrician in care of all pregnant diabetic women is most desirable.

(a) Hospitalization is advised when pregnancy first occurs for complete stabilization and study of the diabetes.

(b) Patient should be observed every

three to four weeks throughout the whole pregnancy period.

(c) Diet must supply all the essential nutritional factors:

(1) We advocate higher carbohydrate diet.

5. Glycosuria as an index of the hyperglycemic level is not to be depended upon for the renal threshold has been found to be variable in many instances not only in various patients but in the same patient.[24]

(a) Much harm may occur to the diabetic woman or fetus by placing too much reliance upon urine sugar as related above.

6. More reliance should be placed upon blood sugar examination (fasting and post-prandial). We prefer post-prandial two hours after meals) to fasting blood sugar estimations for index of the patient's oxidizing power, though both estimations are occasionally necessary in protamine and ordinary insulin patient.

7. Protamine insulin alone is not advocated to control blood sugar levels during pregnancy and puerperium because of dangers of hypoglycemia reaction. Ordinary insulin is preferred.

8. At time of labor patient should be stabilized so as to meet any emergencies.

(a) Choice of delivery should be judged by the diabetic state, obstetrician and internist.

9. Cesarean section is advocated only when indications arise.

10. Mother should be carefully observed during puerperium for acidosis or coma as well as hypoglycemia.

(a) Lactation is advocated if there are no contra-indications.

(b) Child immediately after delivery should be observed for hypoglycemia reactions.

(c) When weaning child the patient should be carefully studied for increased hyperglycemia or acidosis.

11. Sterilizing diabetic women is not advocated by the author.

Conclusion

1. We advocate examination for diabetes mellitus routinely in all women who have given birth to children above average weight, or had still-births and miscarriages.

(a) These measures will help detect the mild diabetics and prevent many of the pathological disturbance of diabetes.

2. More reliance upon blood sugar estimation than urine sugar for control of diabetes. Post-prandial (two hours after meal) blood sugar estimation is a better index of the oxidizing power of the diabetic than lasting though both are often necessary in judging protamine and insulin dose of the patient.

3. Such measures will help better control diabetes and aid in reducing the prevalent increased fetal mortality as also unfavorable disturbances to the mother.

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Undulant Fever

Outbreak at Michigan State College*

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■ During 1937 and 1938, there had been more and more cases of undulant fever on Michigan State College Campus. This was due in part to simplified diagnostic methods; but many acute cases appeared until it became very evident that a "leak" was occurring in the Bacteriological laboratory. It is true in taking a large group of inexperienced students into a laboratory there is bound to be awkward and improper handling of cultures, but the laboratory officials insisted that students were never given pathologic organisms. In 1938, a very severe case occurred in a student who was engaged to wash glassware on the top floor of the building. He never was given dishes until they had been sterilized and yet he developed a severe case of the disease. In June of 1938, another student whose work was to empty waste-paper baskets and clean up the offices developed a severe case which incapacitated him most of the summer. I firmly believe that if summer vacation had not intervened just at this time that our epidemic would have occurred much sooner. However, on December 16, 1938, came the first case and in the month that followed occurred an outbreak which put our college on the map (bacteriologically speaking) and caused her name to be flung in screaming headlines from coast to coast. Tabloids scented material to make a real sensation. Anxious parents wrote, came by train and flew to make sure their children were safe.

The seriousness of this outbreak has not been overestimated. It cost one boy his life. Upwards of fifty others have been deprived of their time for varying periods of from three weeks to seven months and last, but not least, when budgets are such a matter for worry, it cost the College as nearly as we can estimate, a cool $20,000.

On December 16, as before stated, the first case occurred. This, like most undulant fever at its early stages, was diagnosed influenza. There is no distinction in the two conditions either subjectively or clinically unless one is able, when first seeing the patient, to detect an enlarged spleen. But unlike influenza the temperature failed to drop after 24 to 48 hours and it was then that the more serious disease was discovered. This case was extremely mild; recovery occurred in about three weeks but a positive blood culture was obtained for Brucella and the strain was found to be Melitensis. Cases followed in rapid succession at the average rate of more than one each day until something like fifty cases in all were reported. The papers insisted on making this number larger because of the fact the State Health Department included in their figures all cases diagnosed during the past year. Besides those cases occurring in the Student body, a plumber who installed an autoclave, a delivery boy whose only contact in the building was in making deliveries from the Stores Department and two or more laboratory workers developed the disease.

Because of crowded conditions and insufficient help at the College Infirmary it was impossible to obtain as detailed histories as desired or to follow the patients as closely with laboratory procedures as we wished. However, we did our best with limited facilities. We feel certain that there are no misdiagnosed cases in this group as nearly all have yielded at one time or another a positive blood culture.

*Read at the annual meeting of the State Medical Society at Grand Rapids, Michigan, September 20, 1939.

Symptoms

Symptoms of this disease, as before stated, resemble or are identical with influenza. In this group the following list of complaints are arranged in the order of their frequencies:

All complained of fever and either frank chills or definite chilliness, sweats (profuse and drenching), headache, backache and muscular pains, malaise and fatigue, nausea and vomiting, loss of appetite, loss of weight, vertigo and blurring vision, sore throat and dry cough, inability to remember or think clearly.

Ordinarily fever is not considered a symptom but you must remember that many of these students were in the Veterinary Science School and made their own observation and diagnoses before we saw them. Others had been under the care of home physicians during the Holiday vacation and thus were aware of temperature elevations. The vast majority, however, complained of periods of overcoming and stifling body heat.

Chills were outstanding. These in most cases were not light but definite rigor which lasted from ½ to 1½ hours. Following these, there was marked diaphoresis. It was frequently necessary to completely renew bed linen as often as three and four times daily. Temperature often reached 105 degrees following severe chills.

Headache is one of the outstanding symptoms of undulant fever. During the past two years I considered a persistent occipital headache as almost pathognomonic of Brucellosis in Veterinary or Bacteriology students. In this group, however, severe frontal headaches were as frequent as were occipital.

Severe backache and pain down the legs accompanied by general muscular soreness occurred very frequently in the acute stage of the disease and was an outstanding symptom in each relapse.

Nausea and vomiting were usually associated with the chills. Several cases, however, had to be maintained on intravenous fluids for as long as fourteen days at a time because of persistent vomiting.

Loss of weight occurred in those cases who tried to wear out the infection and insisted upon attending classes rather than going to bed. This was marked. (Ten pounds per week in one case.)

Pharyngitis and a dry cough were presenting symptoms in only two cases; however, several patients were troubled a great deal with a non-productive bronchial cough during relapses while still in the hospital.

One case is interesting because I feel he represented a definite reinfection rather than a relapse. He was first diagnosed as a case of Brucellosis in the summer of 1938. With rest and treatment he apparently recovered satisfactorily but again developed symptoms along with this present group. He gave a history of having been in and out of the laboratory building during the time of the supposed dissemination of the infection. His course ran rather parallel with those infected in this group.

Diagnosis

I found the skin test to be most reliable in the early stages of the infection. In this group all cases had a more or less active skin reaction at the time of admission. For this test Brucellergin, the antigen as prepared in Huddleson's laboratory, was used. Formerly I considered only 48-hour reactions but in many of these cases the edema and redness would be practically gone at 48 hours. The test is now read both after 24 hours and after 48 hours. Every positive skin reaction does not mean a case of Brucellosis. It must be followed up with more confirmatory findings. Edema and often ascending lymphangitis with enlargement and tenderness of the axillary lymph nodes was frequently encountered.

Serum agglutination was often negative or present in very low titre in the early stages of the disease. However, within ten days it became positive in dilutions up to 1:600. All cases with positive skin tests who failed to quickly produce agglutinins were found to be due to individual sensitivity to the antigen and were not active cases.

The opsonocytophagic index is only a confirmatory finding. This is one of the things I found to be false in our conception of Brucellosis. All cases show varying degrees of opsonic activity but the test can in no way be considered a criterion for terming a case acute, chronic or cured. There were many cases

showing 25 marked cells who were running temperatures up to 103 at the time the samples were taken and other cases who, to the best of my opinion, were at least in remission, if not cured, with only 15-17 marked cells. (Huddleson's laboratory counts but 25 cells.)

If a high leukocyte count exists the patient does not have Brucellosis. Throughout this series counts ranged from 3,500 to 5,000, gradually increasing as the general condition of the patient improved. There was little change in the differential count until the patient began to improve, when large numbers of juvenile and stab forms were noted.

Physical examination revealed nothing except that at some time during the course of the disease all patients exhibited a splenomegaly ranging in degree from just palpable to three or four finger breadths below the costal margin.

The urine in a few cases, at the febrile heights, showed a one plus to two plus albumen, occasional granular casts and red blood cells—the picture of a mild toxic nephritis. This condition was fleeting in every case. There has apparently been no residual permanent kidney damage in any case.

The melitensis form of this disease compares in degree to the Abortus form much as typhoid compares to paratyphoid. It is a very severe toxic infectious disease. Many cases after two days' illness became so weak that they were unable to feed themselves, or to take fluids without aid.

Treatment

Early in the course of the disease, I learned the fallacy of treating an acute toxic disease by the injection of more toxin. Brucellin gave much trouble before I finally abandoned its use. Brucellin has a place in the treatment of chronic infections where stimulation of antibodies is needed but not in the acute stage.

Brucellosis is a septicemia and should be treated as such. The treatment should not differ from that in other blood stream infections.

General supportive measures are most important. Plenty of fluids and supportive blood transfusions were used as indicated. At first I tried to use blood from supposedly recovered donors whose names were furnished us by the "Brucella station." These were soon exhausted and regular donors were used with equally good results. Transfusions were the most effective measure. While not in any sense specific they gave the patient the necessary support. Aspirin and codeine were used very freely to relieve discomfort.

Sulfanilamide and neo-prontosil were tried but quickly abandoned. It seemed to increase prostration.

The results of sulfapyridine* were spectacular. One patient who had been running a daily high elevation of temperature dropped to normal in 36 hours and had a normal temperature for a period of two weeks; a much longer afebrile period than he had previously had. Several other cases responded in a like manner. All cases so treated relapsed. The administration of the drug was not properly controlled as I had no means of determining the blood concentration level of the drug and was continually hampered by the inability of the patient to retain the medication.

With but two exceptions, vomiting was very marked, and the necessary equipment to administer oxygen to control this condition was not available.

The blood picture was watched carefully during administration of this drug and without exception there was an increase in the total leukocyte count out of proportion to the possible dehydration present and a sharp rise in the stab and juvenile forms.

I believe this drug has definite possibilities in the treatment of the acute form of this disease.

In July four patients were yet at the hospital who were running periodic elevations of temperature.† **A convalescent serum was prepared from the blood of five recovered cases and administered to them. All reported a marked improvement in subjective symptoms.** I do not say that this serum cured these patients for they should have recovered spontaneously by this time. However, it did give them a very

*Furnished through the courtesy of the Merck Company.
†Convalescent serum was prepared in the State Health Department Laboratory at Lansing from cases which recovered earlier in the epidemic.

remarkable mental boost which they sorely needed after approximately five months of fever.

Probably foremost in our treatment was good wholesome food. It was truly surprising to see the physical state of these patients during remissions of the fever. They were alert, jovial and in excellent spirits. Only a few were below their normal weight when they left the hospital and many had surpassed any previous weight.

A fourteen-day afebrile period was set as an arbitrary prerequisite for dismissal. Many would relapse on the thirteenth day. About ten were released and had to return for further care but the majority were able to stay out after this period of time.

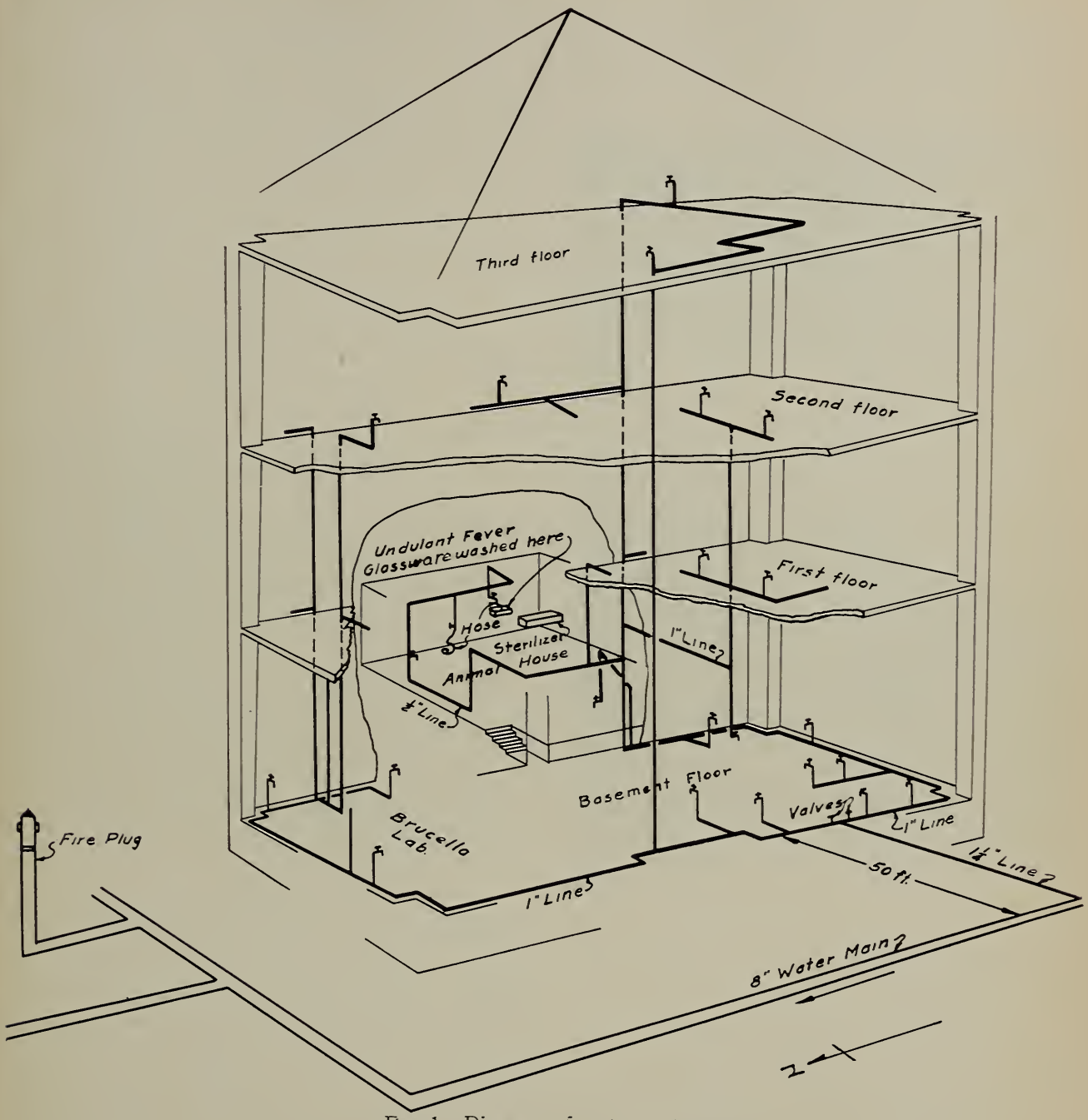


Fig. 1. Diagram of water system.

Complications

Complications in this series were few. Arthralgia of the hip joint was so common that it was considered almost part of the disease.

Radiographs showed no bone destruction. All recovered without disability.

One patient developed a right femoral phlebitis and a right pleuritis with a slight effusion which did not necessitate aspiration.

Orchitis occurred in one case and was bilateral. Culture of fluid from the epididymis did not yield the organism. Others complained of testicular pain but did not present any swelling.

A clinical diagnosis of pericarditis was made in one case. This was supported by x-ray study but no paracentesis was attempted.

Epidemiology*

Every case found to be infected with Brucella melitensis had been in the bacteriology building during the month of December.

The building is quite old and unsuitable architecturally for its purpose. Adaptation of the plumbing system to meet the demands of greatly augmented numbers of students during the past several years has greatly exceeded the capacity of the service. It will be noted that the building's water supply is obtained from the college distributing system through a 1¼ inch service pipe approximately 50 feet long. Immediately inside the building there is a T coupling diverting the water into two 1-inch lines which extend around the building in opposite directions but do not reconnect. One-inch risers serve the first, second, and third floors.

It was a custom of the Brucella laboratory to place discarded cultures contained in Petri dishes and culture tubes in copper containers of about 1 cubic foot capacity. These were packed full, a tight fitting cover adjusted, and placed in an Arnold sterilizer. At the end of one hour's exposure to steam the dishes were removed, media scraped out, and the glassware washed in a nearby sink. As a test of the effectiveness of this sterilization we carried out the following procedure: On removal of the copper container after one hour it was found that the glassware could be comfortably handled immediately and that the agar media was not even melted. It was obvious that the method was entirely inadequate for sterilization of cultures.

The custom followed in washing the glassware was as follows: After the media was discarded the glassware was put in a large dishpan in the sink, the dishpan filled with water, and after a period of soaking the glassware washed. A piece of rubber tubing connected to the faucet was used to prevent breakage. When the dishpan was filled this tubing extended below the surface of the water in the dishpan. The possibility of siphonage if a negative pressure obtained in the water system was apparent.

Demonstration of Siphonage.—By opening several faucets in the basement a negative pressure was produced in the faucet at the sink where the glassware was washed. A pressure recorder on the third floor showed a negative pressure equivalent to 2 inches of mercury when all outlets in the basement were allowed to remain open. A solution of fluorescine was placed in a container in the sink used for washing glassware and after a negative pressure was produced at that point the dyed water was siphoned into the water system. After the dye had reached beyond the riser pipes to the upper floors, the pressure was again returned to positive, and green water was obtained from every outlet in the building.

Referring to Figure 1 it will be noted that one of the riser pipes supplying the third floor is connected with the line supplying the sink where the glassware was washed. This allowed for more direct water communication between this sink and the third floor laboratory. Considerably more pipes would need to be traversed by contaminated water to reach the first and second floors. This fact may have been responsible for the higher percentage of infected students among those using the third floor than among those using the second floor.

A new sink and two autoclaves were installed in the building during December. The water main outside the building had been tapped for a service to a new building nearby. Thus, in addition to the possibility of negative pressure being created by the simultaneous opening of a number of outlets in the building, there were additional possibilities when the water was shut off during these installations.

Conclusion

The last patients left the hospital about August 15. To date none has reported back in relapse. The Brucella laboratory has been moved to isolated quarters and the plumbing situation corrected. Further outbreaks are unlikely.

*Credit for this report is given to Dr. Newitt.

HYPERTHYROIDISM INCREASES NEED FOR VITAMIN C

In conditions of over-activity of the thyroid the increased metabolism of the body is reflected in an enhanced demand for vitamins and mineral salts. In animals with experimental hyperthyroidism the administration of suitable doses of Vitamin C prevented a fall of muscle and liver glycogen and contributed to the well-being of the animal. Carrière, Morel and Gineste treated hyperthyroid patients with Vitamin C and found that those with mild or moderate degrees of the disease were benefited, while those in the more severe stages did not respond to the treatment. In hyperthyroidism, as in other states of increased metabolism, the greater demand for Vitamin C calls for a larger supply in the diet.—*Citrus Fruits and Health.*

The Electro-Stethophone and Recording Apparatus

For Fetal and Adult Heart

By Harry Kirschbaum, M.D.
Detroit, Michigan

Harry Kirschbaum, M.D.
M.D., Detroit College of Medicine, 1921. Fellow, American College of Surgeons. Member, Michigan Society of Obstetrics and Gynecologists. Senior Attending Obstetrician and Gynecologist at Woman's Hospital, Detroit. Member, Michigan State Medical Society.

■ The electro-stethophone is a device which renders the fetal and adult heart sounds audible throughout an auditorium.

The recording apparatus will record these sounds on a phonograhic record, or sound film; so that a permanent record can be made.

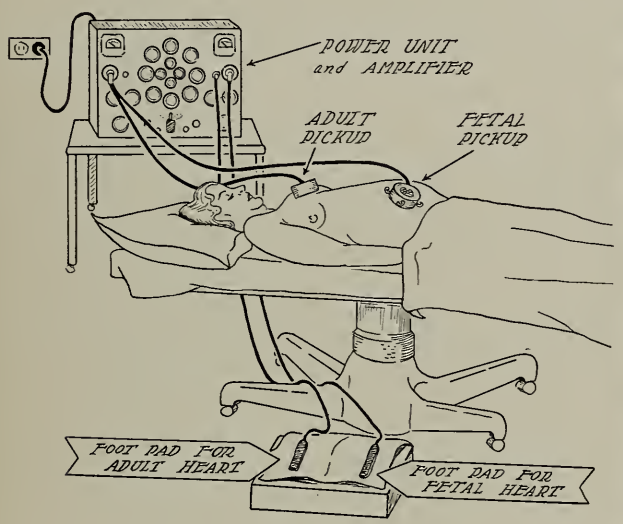


Fig. 1

To best amplify the fetal heart sounds, the *fetal pickup* should be over the point of maximum intensity. For the adult heart sounds, the *adult pickup* need not be over the precordium, but may be placed over the back or in the right axilla.

The machine may be turned on and off by merely approximating the foot to, or withdrawing the foot from the foot pad on the floor. The apparatus is spark proof, and therefore may be safely used in the presence of inflammable anesthetic agents.

Its uses and advantages are:

A. *For Fetal Heart Tones.*
   1. Teaching students.
   2. Listening to heart tones during labor.
   3. While delivering, the fetal heart tones may be heard without disturbing sterile drapes.
   4. Hearing the fetal and adult heart at the same time.
   5. Listening for twin hearts simultaneously.



Fig. 2.

B. *For Adult Heart Sounds.*
   1. For demonstration and teaching.
   2. For experimental work.
   3. For following the condition of the patient's heart during surgical procedures. (The surgeon or anesthetist turns the machine on and off at will, by placing his foot near or away from the foot pad.)

There will probably be more uses for the machine than are apparent at the present time.

EDITORIAL

"MISSED THE BUS"

■ The Commission on Graduate Medical Education has published a very complete volume containing their analyses of, and recommendations on various medical education problems. The avowed purpose is "to formulate the educational problems and principles involved in the continuation of medical training for a period of years after graduation and the adequate training of specialists." They have gone beyond that premise in recommending changes in the compulsory interne year's training, limiting the teaching of special technics for those who are to go directly into the specialties.

A review of the membership of the Commission is quite interesting. It is distinctly a commission of specialists and, to an overwhelming degree, professors from medical schools. A history of the medical development of these distinguished and learned men is not available, but, if there are among them any considerable number who have been in the general practice of medicine in communities where the health of the common people has been their responsibility, the memories of their problems at that time must have faded considerably.

Despite occasions in which the good old general practitioner is praised and commended, the conglomerate thought indicates this conception of a family doctor—only an agent to direct the patient, who has more than a common cold or acute enteritis, to the designated specialist. Quoting isolated paragraphs from a book of this nature is both unfair and unsatisfactory, however, it is safe to repeat that considerable emphasis is placed on the error of teaching special technics to the general interne. Any general practitioner who reads the section on interneships cannot but feel that the Commission has "missed the bus."

The general practitioner is the backbone of medicine in the United States. No matter what group of specialists decide otherwise, the curtailment of activity of the general practitioner will spell doom to the private practice of medicine. There are only a scattered few family doctors who are not seriously concerned with the welfare of their patients and thus will treat and advise them to the greatest good to the patient, referring when social and physical need indicate; but even those few who do not know their limitations are safer practitioners than the number of specialists who do not recognize their own limitations.

Economically, it is necessary that the man in the field be able to do most of the not-too-highly specialized services if he desires to make a living privately. Five years of medical training should give him this comparative ability. If it does not then it is undergraduate education that has failed and not the general practitioner.

Still more important, it is necessary that the general practitioner be trained to perform these services to save a large number of the people the necessarily higher expense of consultation with the specialist. Free and part-pay clinics in the larger cities cannot take the place of the well-rounded family doctor. It is not necessary to list the other phases of the practice of medicine which the Commission is seeking to change. May the time never come when the general practitioner is only soliciting agent for the specialist. For when that time comes, one of the greatest of private industries (according to a government attorney) will become a government bureau.

Nearly four-fifths of the practicing physicians in the United States are in general practice of medicine. Why a small part of the one-fifth should attempt to dictate the educational requirements of this very large majority seems a bit out of line. When the general practitioners will organize a similar commission and lay down the principles under which the man in the field can be best trained to serve the American people then will the democratic practice of medicine be guaranteed to the profession and to the country.

This group of specialists may well regulate the special training for specialists and no one can deny their capability and, perhaps, their right, but in outlining suggestions for general interneship they demonstrate their disregard of the problem of the general practitioner and tend to destroy the basis of the private practice of medicine.

President's Page

QUO VADIS

THERE lie before me seventy-five volumes, the contents of which make the history of our Society. They contain not only the formal transactions but the thought, the controversies and the aspirations of its members. As I read them I am proud of the Michigan State Medical Society and I count myself fortunate in having had the opportunity of playing a small part in the making of this history. I am grateful to the Society for giving me the opportunity, and I am most especially appreciative of the honor of being your president during this past year.

It is evident, as one reads the early volumes, that the physician of that day was little more than a medicine man, possessed of rare common sense, it is true, and conscious that in the realm of disease he was largely working in the dark. Medicine based on scientific facts, on bacteriology and chemistry and physiology, had not yet come into being.

It is pleasing to note that the Michigan State Medical Society has kept pace and is keeping pace with these advances, and best of all to note the progressive growth of a social conscience and a social responsibility.

But what of the future? Is war to come and interrupt these advances? Is our progressive thinking to be disturbed or permanently dislocated by the catastrophic crises in Europe? There is a traditional solidity to the profession equalled only by the church, and I have faith that the progress of medicine will, in spite of interruptions, continue. Now, more than ever, doctors must feel their obligation to the profession, and put their shoulders to the wheel if medicine is to maintain its traditional form with its ethics intact.

As I write for the last time this page, I take occasion to express my appreciation and that of the Society to committee members and chairmen, who have contributed so generously to make this year a year of exceptional progress.

Burton R. Corbus

President, Michigan State Medical Society.



DETROIT WELCOMES YOU

PHYSICIANS and their families who return again this year to Detroit for the annual meeting of the Michigan State Medical Society, will find as hearty a welcome as ever awaiting them.

Detroit with genuine sincerity is extending the glad hand to its out-of-town guests; the Wayne County Medical Society, host organization, is looking forward to the pleasure of entertaining the physicians and members of their families this month.

To the women guests, Detroit's stores will be found as attractive as ever, and who of them does not enjoy an afternoon's shopping? Not only this as a diversion, the Art Center is within easy reach by automobile or bus.



The Public Library—Detroit

Detroit has become one of the important education centers of the country. Wayne University, perhaps the largest municipal educational institution of its kind, has grown great with its affiliated medical, law and teachers' colleges. And here the medical reader will be interested in the movement in the Wayne University Medical School which has succeeded the Detroit College of Medicine and Surgery. The older institution emphasized the practical or clinical features of medicine. The Wayne Medical School has undertaken extensive research in the various sciences basic to medicine and surgery. It is a class A school, meeting all the requirements of the Council on Medical Education of the American Medical Association. The buildings on St. Antoine and Mullett Streets, which house the school, will be familiar to the graduates of the old Detroit College of Medicine and Surgery, but many new faces of full time professors and instructors will be found. The trend towards research is in keeping with the spirit of the age in Detroit. The rich and varied clinical material which such a large city provides is being used for teaching purposes. Clinics by Wayne County members of the medical profession constitute

a postgraduate course throughout the entire year.

Detroit as a manufacturing and industrial center is well known to all. Not only is it the center of the largest automobile industry in the world, but it has the largest stove manufacturing plant, adding machine concern, pharmaceutical laboratory, and electric refrigeration plant. There are one hundred and thirty-three companies manufacturing drugs and chemicals. Detroit has a municipal airport as well as a county airport, and airplanes are manufactured by a number of concerns. It has the largest copper and brass rolling mills and is well forward in the production of salt, marine engines, paints and varnishes, freight cars, vacuum cleaners, and many other products.



Night Scene, Washington Boulevard, Detroit

The Wayne County Medical Society is the fourth largest component society in the United States. Its 1,800 members enjoy an unusually large number of benefits, among which the Society's home at the corner of Woodward and Canfield is notable. The facilities of these beautiful headquarters were made available to the members of the Society through the interest of the David Whitney family. In these surroundings, not only the scientific side of medicine but also the social aspects are enhanced. Daily luncheon is served; special dinners and many organizational functions that make for friendly coöperation among the members of the profession and their families are constant events. Outstate physicians are invited to visit the headquarters of the Wayne County Medical Society on the occasion of the 1940 Detroit Convention.

Of the attractions, Greenfield Village and the Detroit Zoological Gardens are among the most interesting objects in America. Greenfield Village at Dearborn is a historical museum of Americana becoming more important and valuable with the march of time. The Zoological Gardens out Woodward Avenue show the various animals in a native habitat as nearly as possible. The Gardens have an area of 125 acres served by a miniature narrow gage railway which relieves the spectator of much walking.



Scene in Greenfield Village

Come to Detroit and enjoy its attractions.

THE 75TH ANNUAL MEETING
DETROIT — 1940

CONVENTION INFORMATION

DIRECTORY

Headquarters.....Book-Cadillac Hotel, Detroit

Registration.....Fifth Floor, Book-Cadillac Hotel

Official M.S.M.S. Booth.....
Fifth Floor, Book-Cadillac Hotel

General Assemblies.....
Grand Ballroom (Fourth Floor), Book-Cadillac Hotel

Technical Exhibition .....
Fourth Floor, Book-Cadillac Hotel

Press Room .....
Parlor "F," Fifth Floor, Book-Cadillac Hotel

Woman's Auxiliary Headquarters.....
Book-Cadillac Hotel

* * *

Register—Fifth Floor, Book-Cadillac Hotel, Detroit—as soon as you arrive.

Admission will be by badge only to all Scientific Assemblies and Section Meetings. Monitors at entrance.

Bring your M.S.M.S. or A.M.A. Membership Card to expedite registration.

No registration fee to members of the Michigan State Medical Society.

Hours of Registration: Daily 8:30 a.m. to 6:00 p.m. on Tuesday, Wednesday, and Thursday, and to 4:00 p.m. on Friday.

* * *

Guests—Members of the American Medical Association from any state, or from a province of Canada and physicians of the Army, Navy and U. S. Public Health Service are invited to attend, as guests. Please present credentials at Registration Desk.

Bona-fide doctors of medicine serving as internes, residents, or who are associate or probationary members of county medical societies, *if vouched for by an M.S.M.S. Councilor or the president or secretary of the county medical society,* will be registered as guests. (Please present credentials at Registration Desk.)

* * *

Physicians, not members, if listed in the American Medical Directory, may register as guests upon payment of $5.00. This amount will be credited to them as dues in the Michigan State Medical Society **for the balance of 1940 only,** provided they subsequently are accepted as members by their County Medical Society.

* * *

The Committee Organization Luncheon, a meeting of M.S.M.S. Committee Chairmen who have been appointed by President-Elect Urmston to serve during the coming year, will be held on Wednesday, September 25, 1940, 12:30 p.m. in Parlor "H" of the Book-Cadillac Hotel.

Symposium on

"THE BUSINESS SIDE OF MEDICINE"

Tuesday, September 24, 1940
12:15 to 4:30 p. m.

English Room
Book-Cadillac Hotel

This meeting is arranged especially for the secretaries and office assistants of members of the Michigan State Medical Society. Physicians are urged to send their office secretaries to this meeting; the suggestions and ideas offered at this session will more than repay the doctor for sending his secretary to this meeting. There is no registration fee, only a charge made by the hotel for the luncheon.



MARJORIE EULER



J. D. LAUX

Presiding: ALLAN MCDONALD, M.D., Detroit, President, Wayne County Medical Society

Luncheon—English Room—12:15 p.m.
(Subscription)

1. Welcome
   PAUL R. URMSTON, M.D., Bay City, President-Elect, Michigan State Medical Society
2. "The Highlights of Twenty-five Years of Service"
   MRS. MARJORIE EULER, Topeka, Kansas
3. "Organizing the Medical Assistants Society of Muskegon County"
   MISS MAXINE ROBINSON, Muskegon
4. "How to Bill Michigan Medical Service"
   J. D. LAUX, Executive Director, Michigan Medical Service, Detroit
5. "WHAT EVERY WOMAN KNOWS"
   DWIGHT ANDERSON, LL.B., New York City, Director of the Public Relations Bureau, N.Y. State Medical Society
7. Round-table discussion
8. Preview of M.S.M.S. Technical Exhibit (4:30 to 5:15 p.m.)

The Michigan Association of Industrial Physicians and Surgeons will meet Tuesday, September 24, 1940, in connection with the M.S.M.S. Convention. An Operative Clinic and Round Table Discussion will be held at Harper Hospital from 9:00 a.m. to 4:00 p.m. Dinner at the Book-Cadillac Hotel 6:30 p.m. All members of the Michigan State Medical Society are cordially invited to attend this meeting.

* * *

The Michigan Branch of the American Academy of Pediatrics will hold a dinner at the Hotel Statler, Thursday, September 26, at 6:30 P.M. For further details write W. C. C. Cole, M.D., 1077 Fisher Building, Detroit.

* * *

Headquarters of the Michigan State Medical Society are adjacent to the Registration Desk on the Fifth Floor of the Book-Cadillac Hotel. A Councilor or Officer of the Michigan State Medical Society will be in attendance at all times. Members are invited and urged to stop at the Headquarters Booth and meet the M.S.M.S. officers.

* * *

Diamond Jubilee Banquet—On Wednesday evening, September 25, at 7:00 o'clock, the Diamond Jubilee Banquet honoring the President and living Past Presidents of the Michigan State Medical Society, will be held in the Grand Ballroom of the Book-Cadillac Hotel. The following living Past Presidents of the State Medical Society will be guests of honor:

Reuben Peterson, M.D., Duxbury, Massachusetts—1914; Andrew P. Biddle, M.D., Detroit—1916 and 1917; Arthur M. Hume, M.D., Owosso—1918; Charles H. Baker, M.D., Bay City—1919; Guy L. Connor, M.D., Detroit—1923; J. B. Jackson, M.D., Kalamazoo—1926; Herbert E. Randall, M.D., Flint—1927; Louis J. Hirschman, M.D., Detroit—1928; J. D. Brook, M.D., Grandville—1929; J. Milton Robb, M.D., Detroit—1932; George LeFevre, M.D., Muskegon—1933; Grover C. Penberthy, M.D., Detroit—1935; Henry E. Perry, M.D., Newberry—1936; Henry Cook, M.D., Flint—1937; Henry A. Luce, M.D., Detroit—1938.

All M.S.M.S. members, their ladies and guests are invited to attend the Diamond Jubilee Banquet and help celebrate the completion of 75 years of service in Michigan by organized Medicine.

The public is invited to hear the Presidents' Night program. Invite your patients and other friends.

* * *

Upper Peninsula Cocktail party for Upper Peninsula physicians (past, present and future) and their wives, will be held at the Book-Cadillac on Wednesday, September 25, 5:00 p.m. Councilors W. H. Huron and A. H. Miller will be hosts.

* * *

Seven General Assemblies, Wednesday, Thursday, afternoon, Friday, September 25-26-27.

* * *

All Section Meetings will be held on Thursday morning, September 26, 1940.

* * *

Parking—Do not park on the street. Use parking lots available nearby, or inside parking facilities through hotel service.

Special rates for parking for members attending the Detroit meeting of the M.S.M.S. have been arranged as follows:

Two units of the Detroit Garages, Inc., one at Cass and Lafayette, and the north unit at Clifford and Elizabeth, will provide rates as follows:

2 hours—25c	24 hours—$1.00
4 hours—35c	3 days —$2.00
10 hours—50c	4 days —$2.50
18 hours—75c	

* * *

In Case of Emergency, doctors will be paged from the meetings by announcement on the screen.

* * *

Telephone Service—Local and long-distance telephone will be available. Inquire at Registration Desk, Fifth Floor, Book-Cadillac Hotel.

COUNTY SECRETARIES' CONFERENCE

English Room **Book-Cadillac Hotel**

Wednesday, September 25, 1940

LUNCHEON—12:00 to 1:30 P.M.

HORACE WRAY PORTER, M.D., Jackson, Presiding



DWIGHT ANDERSON

1. "The War of Ideas"
   DWIGHT ANDERSON, LL.B., Director of the Bureau of Public Relations, State Medical Society of New York, and author of "What It Means to Be a Doctor."

2. "The Crippled-Afflicted Children Laws Administration"
   L. FERNALD FOSTER, M.D., Bay City, Secretary, Michigan State Medical Society

All Members of the State Society will be Welcome at This Conference

The Maternal Health Committee announces that its annual reunion luncheon will be held on Thursday, September 26, 12:30 p.m. in the English Room, Book-Cadillac Hotel. All members, past and present, of the State Society's and of county societies' Maternal Health Committee are cordially invited to attend this get-together luncheon which is sponsored by the W. K. Kellogg Foundation.

Samuel A. Cosgrove, M.D., Jersey City, New Jersey, will be guest speaker. He has a real message for physicians who are interested in the subject of maternal health.

* * *

Acknowledgment—The Michigan State Medical Society sincerely thanks the following friends for their sponsorship of lectures at the 1940 meeting.

Sponsor and Lecturer—Michigan Department of Health, *Paul A. Neal, M.D.,* Washington, D. C.; The Michigan Tuberculosis Association, *Henry C. Sweany, M.D.,* Chicago; W. K. Kellogg Foundation, *Samuel A. Cosgrove, M.D.,* Jersey City; The McGregor Health Foundation, *H. Flanders Dunbar, M.D.,* New York; and The Children's Fund of Michigan, *L. Emmett Holt, Jr., M.D.,* Baltimore.

* * *

Essayists Are Very Respectfully Requested not to change time of lecture with another speaker without the approval of the General Assembly. This request is made in order to avoid confusion and disappointment on the part of the audience.

* * *

Register at Each Booth—There is something new for you in the interesting and large exhibit. Stop and show your appreciation of the exhibitors' support in making the Convention possible.

PAPERS WILL BEGIN AND END ON TIME!

Believing there is nothing which makes a scientific meeting more attractive than by-the-clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time, and to close exactly on time, in accordance with the schedule in the program. All who attend the meeting, therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

Invitational Golf—All medical golfers in Michigan are cordially invited to participate in the golf match at the beautiful Detroit Golf Club on Monday, September 23, 1940, 1:00 p.m. Get together a foursome and try for one of the prizes. A big dinner will be served at 7:00 p.m. after which the trophies will be distributed. Events for experts, dubs and beginners. The price, which includes greens fees, dinner and service, only $4.00. Come to the Detroit Golf Club, Monday, September 23, have a lot of fun, see old pals, make new friends—and win a prize!

* * *

The Detroit Committee on Arrangements—Allan McDonald, M.D., Chairman.

Reception Committee—C. E. Weaver, M.D., George O'Brien, M.D., John Carter, M.D., Wm. L. Sherman, M.D., D. C. Somers, M.D., Wm. Summers, M.D., Howard P. Doub, M.D., Wm. S. Reveno, M.D., C. L. Candler, M.D., A. E. Catherwood, M.D., G. L. Coan, M.D., Don A. Cohoe, M.D., Wm. Bromme, M.D., R. J. Elvidge, M.D., Harry Dibble, M.D., C. W. Behn, M.D., A. A. Norconk, M.D., L. T. Colvin, M.D., Duane Beam, M.D., C. E. Stellhorn, M.D., Harold Reynor, M.D., W. L. Brosius, M.D., J. J. Corbett, M.D., J. E. Caldwell, M.D., C. L. Tomsu, M.D., George Van Rhee, M.D., C. W. Balser, M.D., G. S. Bates, M.D., L. E. Bauer, M.D., Jos. W. Becker, M.D., C. K. Valade, M.D., C. F. Brunk, M.D.

Committee on Public Relations—L. W. Hull, M.D., Chairman; L. T. Colvin, M.D., Jay M. Burgess, M.D., J. K. Bell, M.D., Harold F. Sawyer, M.D., W. C. Hawken, M.D., Charles E. Lemmon, M.D.

MICHIGAN MEDICAL SERVICE

First Annual Meeting, Michigan Medical Service. The members of Michigan Medical Service will meet on Monday, September 23, 1940, at 8:00 p.m. in the English Room, Book-Cadillac Hotel, Detroit. Members of Michigan Medical Service are all the members of the Michigan State Medical Society's House of Delegates plus the Directors of Michigan Medical Service. The officers' reports and election of directors will be on the agenda of the first annual meeting.

Baseball—The Detroit Tigers play at Briggs Stadium in Detroit on Sunday, Tuesday and Wednesday, September 22, 24 and 25. On Sunday, the Tigers tangle with the Cleveland Indians. On Tuesday and Wednesday the Tigers will entertain the Chicago White Sox.

* * *

Technical Exhibits—82 booths—open Wednesday, Thursday and Friday at 8:30 a.m.; close on Wednesday and Thursday at 6:00 p.m.; on Friday, close at 3:00 p.m. immediately after the last intermission to view exhibits.

* * *

Press Committee—J. Duane Miller, M.D., Chairman; Gaylord S. Bates, M.D., B. W. McDougall, M.D.

A ONE HUNDRED TWENTY PAGE JOURNAL!

This, the Diamond Jubilee Number of THE JOURNAL of the Michigan State Medical Society, contains 120 pages. This increase of forty pages is due mainly to the courtesy and coöperation of those business friends of the medical profession who inserted special advertisements and congratulatory messages to the doctors in the September, 1940, issue.

When patronizing these friends, say you saw their advertisement in the MSMS JOURNAL.

"WHAT A PROGRAM!"

Members in all parts of the state are eloquent in their enthusiasm over the program—both scientific and social—arranged for the Diamond Jubilee of the Michigan State Medical Society.

Plan to attend this excellent postgraduate opportunity—three days of concentrated, valuable knowledge, stored up for *YOU*.

No registration fee to MSMS members.

THE COUNTRY'S BEST POSTGRADUATE PROGRAM

Wander afield from Michigan and you will soon appreciate the fact that the Postgraduate Courses sponsored by the Michigan State Medical Society, University of Michigan Medical School, Wayne University College of Medicine, and the State Health Department, are well in the van of modern postgraduate programs.

The semi-annual extramural course for practicing physicians will be given in October.

CENTERS	DATES
Ann Arbor	October 10, 17, 24, 31
Battle Creek-Kalamazoo, jointly	October 8, 15, 22, 29
Flint	October 9, 16, 23, 30
Grand Rapids	October 10, 17, 24, 31
Lansing-Jackson, jointly	October 10, 17, 24, 31
Manistee-Traverse City-Cadillac-Petoskey, jointly	October 11, 18, 25, November 1
Mount Clemens	October 9, 16, 23, 30
Saginaw	October 7, 14, 21, 28

The subjects for the course are outlined on page 705; they have been carefully selected for their interest to the practicing physicians and on the basis of a four-year teaching program (ending in certification).

No fee is charged to legally-qualified doctors of medicine who are invited to attend regularly.

PROGRAM SYNOPSIS

MONDAY, SEPTEMBER 23, 1940

1:00 P.M. **M.S.M.S. Invitational Golf**
Detroit Golf Club, Detroit

4:00 P.M. **Meeting of The Council, M.S.M.S.**
Book-Cadillac Hotel, Detroit

6:00 P.M. **Golfers' Banquet and Presentation of Prizes**
Detroit Golf Club, Detroit

8:00 P.M. **First Annual Meeting of Members of Michigan Medical Service**
English Room, Book-Cadillac Hotel, Detroit

TUESDAY, SEPTEMBER 24, 1940

8:00 A.M. **Delegates' Breakfast**
English Room, Book-Cadillac Hotel

9:00 A.M. **First Session, House of Delegates**
Grand Ballroom, Book-Cadillac Hotel

9:30 A.M. to 4:00 P.M. **Industrial Physicians and Surgeons**
Harper Hospital, Detroit

12:15 P.M. **Symposium on "Business Side of Medicine"**
English Room, Book-Cadillac Hotel

3:00 P.M. **Second Session, House of Delegates**
Grand Ballroom, Book-Cadillac Hotel

5:15 P.M. **Preview of Technical Exhibit for members of House of Delegates and M.S.M.S. Officers**
Fourth Floor, Book-Cadillac Hotel

6:30 P.M. **Dinner, Industrial Physicians and Surgeons**
Book-Cadillac Hotel

8:00 P.M. **Third Session, House of Delegates**
Grand Ballroom, Book-Cadillac Hotel

WEDNESDAY, SEPTEMBER 25, 1940

8:30 A.M. **Registration:**
Fifth Floor, Book-Cadillac Hotel

Exhibits Open:
Fourth Floor, Book-Cadillac Hotel

9:30 A.M. **First General Assembly**
Grand Ballroom, Book-Cadillac Hotel
(for detailed program, see page 681)

12:00 Noon **County Secretaries' Conference (Luncheon)**
English Room, Book-Cadillac Hotel

12:30 P.M. **Committee Organization Luncheon**
Parlor H, Book-Cadillac Hotel

1:30 P.M. **Second General Assembly**
Grand Ballroom, Book-Cadillac Hotel
(for detailed program, see page 682)

7:00 P.M. **Diamond Jubilee Banquet, Honoring the President and Past-Presidents of the Michigan State Medical Society**
Grand Ballroom, Book-Cadillac Hotel

8:30 P.M. **Third General Assembly (Public Meeting)**
Grand Ballroom, Book-Cadillac Hotel
(for detailed program, see page 683)

THURSDAY, SEPTEMBER 26, 1940

8:30 A.M. **Registration:**
Fifth Floor, Book-Cadillac Hotel

Exhibits Open:
Fourth Floor, Book-Cadillac Hotel

9:30 A.M. **Meetings of Sections:**

(a) Section on General Medicine
English Room, Book-Cadillac Hotel
(see page 684)

(b) Section on Surgery
Grand Ballroom, Book-Cadillac Hotel
(see page 684)

(c) Section on Obstetrics and Gnyecology
Book Casino, Book-Cadillac Hotel
(see page 685)

(d) Section on Ophthalmology and Otolaryngology
Ophthalmology: Founders Room, Book-Cadillac Hotel
(see page 685)
Otolaryngology: Parlors G-H-I, Bock-Cadillac Hotel
(see page 685)

(e) Section on Pediatrics
Washington Room, Book-Cadillac Hotel
(see page 686)

(f) Section on Dermatology and Syphilology
Harper Hospital, Detroit
(see page 686)

(g) Section on Radiology, Pathology and Anesthesia
Suite 1406-07, Book-Cadillac Hotel
(see page 686)

1:30 P.M. **Fourth General Assembly**
Grand Ballroom, Book-Cadillac Hotel
(for detailed program, see page 687)

9:00 P.M. **Fifth General Assembly**
Smoker (for members only)
(for detailed program, see page 688)

FRIDAY, SEPTEMBER 27, 1940

8:30 A.M. **Registration:**
Fifth Floor, Book-Cadillac Hotel

Exhibits Open:
Fourth Floor, Book-Cadillac Hotel

9:30 A.M. **Sixth General Assembly**
Grand Ballroom, Book-Cadillac Hotel
(for detailed program, see page 688)

12:30 P.M. **Maternal Health Luncheon**
English Room, Book-Cadillac Hotel

1:30 P.M. **Seventh General Assembly**
Grand Ballroom, Book-Cadillac Hotel
(for detailed program, see page 690)

4:30 P.M. **End of Convention**

DOCTOR: WILL YOU PLEASE VIEW THE ATTRACTIVE EXHIBITS CAREFULLY AND FREQUENTLY? (THE BOOTH RENTALS, YOU KNOW, DEFRAY CONVENTION COSTS)

WOMAN'S AUXILIARY



Mrs. L. G. Christian,
President

DETROIT CONVENTION COMMITTEE

Mrs. Harold F. Sawyer, Chairman
Mrs. T. Grover Amos, Co-Chairman
Mrs. Milton A. Darling, Banquet
Mrs. H. Walter Reed, Finance
Mrs. George Lanning, Flowers
Mrs. Audrey O. Brown, Hospitality
Mrs. Wm. L. Sherman, Luncheon
Mrs. E. C. Baumgarten, Printing
Mrs. S. Willard Wallace, Publicity
Mrs. Ledru O. Geib, Registration
Mrs. George Sewell, Transportation



Mrs. H. F. Sawyer
Convention Chairman

OFFICERS, 1939-40

Mrs. L. G. Christian, Lansing.....President
Mrs. Roger V. Walker, Detroit....President-Elect
Mrs. W. W. Bond, Monroe.....Vice President
Mrs. H. L. French, Lansing.....Secretary
Mrs. W. J. Butler, Grand Rapids.....Treasurer
Mrs. P. R. Urmston, Bay City.....Past President
Mrs. Guy L. Kiefer, East Lansing
Honorary President

PROGRAM

Monday, September 23, 1940

Registration—Book-Cadillac Hotel

Tuesday, September 24, 1940

10:00 A.M. **Registration—Book-Cadillac Hotel**

1:00 P.M. **Luncheon, Pre-convention Board Meeting—Founders Room, Book-Cadillac Hotel, 1939-40 Board Members and County Presidents**

7:00 P.M. **Banquet—English Room, Book-Cadillac Hotel**

Presiding—Mrs. L. G. Christian, Lansing, President, Woman's Auxiliary to M.S.M.S.

Chairman—Mrs. Harold F. Sawyer, Pleasant Ridge

Introduction of Past Presidents

Address—Mrs. V. E. Holcombe, Charleston, W. Va., National President, Woman's Auxiliary to A.M.A.

Bridge

Wednesday, September 25, 1940

9:00 A.M. **Formal Opening of Convention—Founders Room, Book-Cadillac Hotel**

Presiding—Mrs. L. G. Christian

Address of Welcome—Mrs. Frederick G. Buesser, Detroit

Response—Mrs. W. W. Bond, Monroe

In Memoriam—Mrs. J. H. Dempster, Detroit

Reading of Minutes—Mrs. H. L. French, Lansing

Report of Treasurer—Mrs. W. J. Butler, Grand Rapids

Auditor's Report—Mrs. W. J. Butler

Report, Convention Chairman — Mrs. Harold F. Sawyer, Pleasant Ridge

Credentials and Registration — Mrs. Ledru O. Geib, Detroit

Report of Special Committee and President's Message—Mrs. L. G. Christian

Reports of Standing Committees

Reports of County Presidents

Reports of Committee on Nominations

Election and Installation of Officers

Presentation of Pin

Courtesy Resolutions

Adjournment

1:00 P.M. **Luncheon at Detroit Boat Club**

Presiding—Mrs. Harold F. Sawyer

Address—"Our Opportunities"—Howard H. Cummings, M.D., Ann Arbor, Member, Executive Committee of The Council, M.S.M.S.

4:00 P.M. **Post-Convention Board Meeting**

Presiding—Mrs. Roger V. Walker, Detroit

1940-1941 Board Members

7:00 P.M. **Diamond Jubilee Banquet of the Michigan State Medical Society**

For M.S.M.S. members, their wives and guests, Grand Ballroom, Book-Cadillac Hotel

PROGRAM of GENERAL ASSEMBLIES

WEDNESDAY MORNING
September 25, 1940

First General Assembly

Grand Ballroom, Book-Cadillac Hotel

ROY C. PERKINS, M.D., Presiding

L. FERNALD FOSTER, M.D., and T. I. BAUER, M.D., Secretaries

A. M.

9:30 "Surgery of the Heart and The Heart in Surgery"

WALLACE M. YATER, M.D., Washington, D. C.



W. M. YATER

M.D., Georgetown University, 1921. After two years' internship he engaged in general practice in Washington, D. C., for four years, then spent several years as a Fellow in Medicine of the Mayo Foundation, Rochester, Minnesota. He returned to Washington, D. C., as Associate Professor of Medicine of Georgetown University School of Medicine. In 1931 he became Professor and Head of the Department of Medicine of the same school, a position which he has occupied ever since. He is also physician-in-chief at Georgetown University Hospital and at Gallinger Municipal Hospital. He is co-author of "Symptom Diagnosis" and author of "The Fundamentals of Internal Medicine." He has published more than 120 scientific articles.

Surgical procedures may have important effects upon the heart, either by operations upon different parts of the body or by operations upon the heart itself. Of the former, the most important is the cure of heart failure due to exophthalmic goiter or toxic adenoma of the thyroid gland by means of sub-total thyroidectomy. A less common procedure is the removal of an arteriovenous fistula, usually traumatic in origin, with relief of cardiac strain produced by the fistula. Although essential hypertension is not a disease of the heart, nevertheless the heart is often strained to the point of failure by its presence; certain operations are being performed with partial success in the relief of essential hypertension.

Of the operations on the heart itself those for traumatic lesions will not be discussed. Purulent pericarditis usually requires surgical drainage, but the mortality is still high. Pericardiectomy even when incomplete sometimes produces remarkable results in cases of chronic constrictive pericarditis. The hardest cases to work with are usually those associated with extensive calcification of the pericardium. Operations performed for the purpose of improving the myocardial blood supply are the pectoral muscle-graft operation of Beck and the omental graft operation of O'Shaughnessy. The practicability and efficacy of these operations are still to be determined. A few operations have been performed to ligate the patent ductus arteriosus. Removal of emboli from the large pulmonary arterial trunks has been successful in some cases.

Major operations may be performed on patients with heart disease provided there is no congestive heart failure present and a skillful anesthetist is available. Many cardiac patients go through operations successfully. Except in cases of urgent emergency all evidence of congestion should be removed if possible before operation.

10:00 "Medical and Surgical Aspects of Diseases of the Prostate"

HUGH HAMPTON YOUNG, M.D., Baltimore, Md.



H. H. YOUNG

M.D., University of Virginia Medical School. He is professor of urology at the Johns Hopkins University Medical School, and visiting urologist to the Johns Hopkins Hospital. Director of Brady Urological Institute, Johns Hopkins Hospital. Author of over three hundred papers, and has written the following books: "Hypertrophy and Cancer of the Prostate"; "Practice of Urology"; a three-volume textbook, with David M. Davis; "Urological Roentgenology," with Charles A. Waters; and "Genital Abnormalities, Hermaphroditism and Related Adrenal Diseases." Member of the American Urological Association, American Association of Genito-Urinary Surgeons and the International Society of Urology. Served as president of each of these organizations. He also belongs to many other medical societies in this country and abroad. Fellow of the Royal College of Surgeons of Ireland. During the World War, Dr. Young was Director of the Division of Urology, A.E.F. and received the D.S.M.

Interest and knowledge of prostatic examinations should be possessed by general practitioners who are usually the first consulted. A simple rectal palpation of the prostate and vesicles may detect diseases which can be quickly cured: prostatitis, prostatic calculi, benign hypertrophy, carcinoma often sufficiently early for radical cure, tuberculosis, sarcoma, cysts, and other rarer conditions. Carcinoma occurs in more than 14 per cent of males over 45 years of age and may often be recognized by simple rectal examination. By radical operation a large percentage of these early cases have been cured. By simple perineal exposure a positive diagnosis can be made and in very early cases hemiprostatectomy is sufficient to obtain a cure. If the disease proves benign, simple enucleation of the hypertrophied lobes and neat surgical closure of the prostatic wound is the quickest, most satisfactory, and in expert hands the safest operation for the larger prostatic hypertrophies. For small obstructions at the vesical orifice, the punch operation, or some of its modifications, is quite satisfactory. Only by complete mastery of both prostatectomy and transurethral resection can the patient be given scientific operative treatment in all diseases of the prostate.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Arterial Hypertension, Forty Years in in Retrospect"

ARTHUR R. ELLIOTT, M.D., Chicago, Illinois



A. R. ELLIOTT

M.D., Queen's University, Canada, 1892; LL.D., Queen's University, 1926. Clinical Professor of Medicine, Rush Medical College, University of Chicago. Senior Attending Physician and Head of Medical Division of St. Luke's Hospital, Chicago.

Beginning with clinical experience in arterial hypertension before the days of the clinical sphygmomanometer, an attempt will be made to pass in review the development of our present clinical concept of that condition. Appraisal of progress made and critique of both medical and surgical therapy to "bring down the blood pressure."

11:30 "Self-Inflicted Injuries"

J. Deryl Hart, M.D., Durham, North Carolina



J. D. Hart

Professor of Surgery, Duke University, School of Medicine; in Charge of Surgical Department, Duke Hospital, Durham, North Carolina. Author of numerous medical publications.

Self-inflicted injuries are more frequent than is commonly suspected. In the presence of unexplained lesions or wounds which, for no apparent reason, fail to heal, one should keep in mind the possibility of self-mutilation. The two most important considerations in making a diagnosis are: 1. Suspect the possibility of self-injury; 2. Obtain prompt healing after removing the wound from all chance of trauma.

A series of cases are reported, a few of which illustrate such injuries occasionally seen by us in the mentally defective, or in those in a position to receive financial gain. The majority, however, have stood to receive no reward other than sympathy, or the pleasure of confounding their family, friends and physicians.

Admission by the patient that the injury is self-inflicted is rare. Such an accusation should never be made without unquestionable proof, and even then it may be preferable without definite statements to make the patient understand that the nature of his trouble is evident to the physician. In the case of certain individuals this knowledge kept in confidence can be used to restrain them from a continuation of self-mutilation though others will persist in their self-mutilation in spite of every treatment, argument, or threat that may be used.

WEDNESDAY NOON

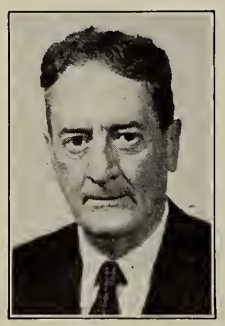
September 25, 1940

Luncheon Meeting, English Room, Book-Cadillac Hotel—12:00 Noon to 1:15 p. m.

P. M.

12:45 "The War of Ideas"

Dwight Anderson, LL.B., New York, N. Y.



Dwight Anderson

LL.B., Western Reserve University. Has been director of the Public Relations Bureau, Medical Society of the State of New York, since the establishment of the Bureau in 1935. During the ten years prior to his present connection he was publicity consultant for the National Tuberculosis Association, the Maternity Center Association, and other organizations engaged in voluntary health work. At various times he has acted in a consulting or executive capacity for the American College of Surgeons, the American College of Physicians, the American Public Health Association, and the American Association of Orthodontists. He is author of the very fine book, "What It Means to Be a Doctor" which was published recently.

THIS IS THE COUNTY SECRETARIES' CONFERENCE TO WHICH ALL M.S.M.S. MEMBERS ARE MOST CORDIALLY INVITED

WEDNESDAY AFTERNOON

September 25, 1940

Second General Assembly

Grand Ballroom, Book-Cadillac Hotel

E. F. Sladek, M.D., Presiding

L. Fernald Foster, M.D., and R. G. Laird, M.D., Secretaries

P. M.

1:30 "Modern Trend in the Treatment of Syphilis"

Paul A. O'Leary, M.D., Rochester, Minn.



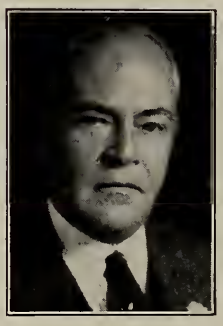
P. A. O'Leary

Professor of Dermatology and Syphilology, Graduate School, University of Minnesota. Director, Department of Dermatology and Syphilology, The Mayo Clinic, Rochester, Minnesota.

The results of the treatment of early syphilis have been so far from ideal that new systems of treatment that are technically simpler, less expensive and less time consuming, have been sought. The so-called five-day plan has some of these features which to date, however, have been offset by serious complications and the need for hospitalization. The period of infectiousness of syphilis as estimated by a survey of a large group of husbands and wives offers a convincing argument of the need for further improvement in the therapy of the disease. Oral bismuth is still in the early experimental phases. A survey of the comparative value of the different types of fever therapy, i.e., malaria versus machine therapy, shows a striking parallelism in certain aspects and differences in others. The indications for fever therapy are well defined.

2:00 "Vitamin and Mineral Requirements in Pregnancy and the Puerperium"

John H. Musser, M.D., New Orleans, La.



J. H. Musser

University of Pennsylvania, B.S. 1905, M.D. 1908. Practiced internal medicine until the War, when he spent two years in the Army. After returning to Philadelphia he became Associate in Medicine at the University of Pennsylvania and on the staff of three of the local hospitals. In 1925 he came to Tulane as Professor of Medicine, where he has been ever since. He also is Senior Visiting Physician at the Charity Hospital, New Orleans. Has at various times been president of the American College of Physicians, and vice president of the American Medical Association. At present is on the American Board of Internal Medicine, and the Council on Medical Education and Hospitals of the A.M.A.

The minor expressions of vitamin deficiency are extremely common in pregnant women. During the puerperium vitamin deficiency may frequently be observed but more common is seen the result of mineral want. Vitamin requrements in pregnancy are greater than normal due to increase in total metabolism or to food idiosyncrasy. During the puerperium the explanation may be attributed to increased excretion from lactation. A discussion of the several vitamins and the more important minerals, which are affected by pregnancy and lactation, will be presented, with accentuation on the minor evidences of any one or combinations of these two substances which may produce poor health.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Methods of Resuscitation"

RALPH M. WATERS, M.D., Madison, Wisconsin



R. M. WATERS

Professor of Anesthesia, Medical School. University of Wisconsin. Director, Department of Anesthesiology, Wisconsin General Hospital.

Older methods of reëstablishing respiratory function will be reviewed. The principles involved in treatment of persons in extremis from acute respiratory depression will be discussed.

The elaborate mechanical devices sometimes used for resuscitation will be contrasted with more simple and available methods. The duties of physicians in the treatment of persons found suffering from acute respiratory depression or arrest will be emphasized. It will be suggested that the custom of relegating such treatment to others than physicians may, in part, result from our own ignorance in the matter.

3:30 "Cyanosis of The New Born"

CHARLES F. MCKHANN, M.D., Boston, Mass.



C. F. MCKHANN

S.B., A.M., M.D., University of Wisconsin. Formerly Associate Professor of Pediatrics and Communicable Diseases, Harvard University Medical School and School of Public Health; Visiting Physician, Infants' and Children's Hospitals, Boston: Consulting Physician, Haynes Memorial Hospital for Contagious Diseases, Boston; and Cape Cod Hospital, Hyannis, Mass.; Visiting Professor of Pediatrics, Peiping Union Medical College, Peiping, China, 1935-36. Newly-appointed Professor of Pediatrics and Communicable Diseases, and Chairman of the Department of Pediatrics and Communicable Diseases, University of Michigan, 1940. Member: American Medical Association, American Academy of Pediatrics, American Pediatric Society, American Society for Clinical Investigation, Society for Pediatric Research (President, 1936), New England Pediatric Society, Massachusetts Medical Society, American Public Health Association, American Board of Pediatrics.

Cyanosis in the newly born may be caused by peripheral circulatory collapse, congenital cardiac defects, atelectasis, edema or hemorrhage into the lungs, but the most common cause is central respiratory depression due to cerebral injury from intrauterine asphyxia or from birth trauma.

Petechial hemorrhages into the brain tissue in asphyxiated babies seem to accompany rather than to cause the nerve cell damage. Birth trauma usually results in gross bleeding from ruptured vessels. Treatment influences favorably cases with gross trauma but with asphyxia prevention rather than treatment is necessary.

BRING YOUR M.S.M.S. MEMBERSHIP CARD TO FACILITATE REGISTRATION.

4:00 "Planned Parenthood: Its Contribution to National Preparedness"

RICHARD N. PIERSON, M.D., New York, N. Y.



R. N. PIERSON

A.B., Princeton University; M.D., College of Physicians and Surgeons, Columbia University, 1918; Formerly Attending Gynecologist and Obstetrician, The Sloane Hospital for Women, New York. Fellow, American College of Surgeons, New York Obstetric Society. Consulting Gynecologist and Obstetrician Stamford Hospital, Stamford, Conn., and Huntington Hospital, Huntington, L. I.

The American people have been shown by Gallup polls and other studies to be overwhelmingly in favor of the principle of planned parenthood. Most patriotic Americans have deplored a falling birth rate here in the U. S. Preliminary studies of the 1940 census suggest a slowing down or reversal of this trend. Response of Americans toward war refugee children show our determination to provide a civilization to accommodate more healthy, wanted children. It is the responsibility of the doctors to help and encourage the fit to have larger families.

The U. S. Army experience in the Great War showed relatively high percentage of draft physically unfit for military service. Public health officers and the profession generally agree that birth control prescribed for medical reasons will lower maternal mortality and morbidity, improve the quality and health of our children. Better medical and social services throughout childhood will maintain this gain.

Planned parenthood on both the positive and negative side, guided and administered by doctors, will contribute importantly to our National Preparedness.

4:30 End of Second General Assembly

THE EIGHTY-TWO (82) EXHIBITS WILL REMAIN OPEN FOR YOUR INSPECTION UNTIL 6:00 P. M.

WEDNESDAY EVENING

September 25, 1940

Third General Assembly
Public Meeting

Diamond Jubilee Dinner

Grand Ballroom, Book-Cadillac Hotel

BURTON R. CORBUS, M.D., Presiding

L. FERNALD FOSTER, M.D., Secretary

PRESIDENTS' NIGHT

P. M.

7:00 The BANQUET, Honoring the President and Past Presidents of the Michigan State Medical Society
Music by the Wayne County Medical Society String Quintet

8:30

1. **Call to order by President Burton R. Corbus, M.D., and presentation of Past Presidents.**
   Response
2. **Announcements and Reports of the House of Delegates by Secretary L. Fernald Foster, M.D., Bay City.**

3. **President's Annual Address—Burton R. Corbus, M.D., Grand Rapids**

4. **Presentation of Scroll and Past President's Key to Doctor Corbus by Henry R. Carstens, M.D., Detroit, Chairman of The Council**

5. **Induction of Paul R. Urmston, M.D., Bay City, into office as President of the Michigan State Medical Society Response**

6. **Introduction of the President-Elect, and other newly elected officers of the State Society**

9:00 7. **"Role of Medical Societies in Medical Progress"**

RUFUS I. COLE, M.D., Mt. Kisco, New York



R. I. COLE

B.S., University of Michigan; M.D., Johns Hopkins University, 1899; Sc.D., University of Chicago. Member of the Staff of the Johns Hopkins Medical School and Hospital from 1899 to 1908. Member and Director of the Hospital of the Rockefeller Institute for Medical Research from 1908 to 1937. During this period engaged in research on problems relating to internal medicine, especially infectious diseases. At present, Member Emeritus, Rockefeller Institute; Vice President, New York Academy of Medicine; Member, National Academy of Sciences.

Relation of medical societies to the early scientific societies. Purposes of medical societies as stated by their founders. History of the development of medical societies in this and other countries; relation to academies. Influence of medical societies on scientific advancement, on education and on public health. Their effect on the scientific and cultural development of the individual members and other members of the profession. The importance of collective action through societies on the economic and social status of the physician.

8. **Presentation of Biddle Oration Scroll to Doctor Cole**



A. P. BIDDLE, M.D., Detroit
Patron of Postgraduate Medical Education

10:00 End of Third General Assembly

VIEW THE EXTRAORDINARY EXHIBIT OF 82 SPACES

— PROGRAM of SECTIONS —

THURSDAY MORNING

September 26, 1940

SECTION ON GENERAL MEDICINE

Chairman—PAUL W. KNISKERN, M.D., Grand Rapids
Secretary: T. I. BAUER, M.D., Lansing

English Room, Book-Cadillac Hotel

A. M.

9:00 **"Blood Transfusions and Blood Banks"**
S. M. GOLDHAMER, M.D., Ann Arbor

9:30 **"Clinical Use of Sulfathiozole"**
GORDON MYERS, M.D., Detroit

10:00 **"Remarks on Coronary Vascular Heart Disease"**
JOHN H. MUSSER, M.D., New Orleans, La.

10:30 **"Medical Management of Chronic Ulcerative Colitis"**
THOMAS MACKIE, M.D., New York City

11:00 **"Clinical Pathological Conference, Conducted by**
OSBORNE BRINES, M.D., and PAUL NOTH, M. D., Detroit
DISCUSSANTS: EDWARD SPALDING, M.D., Detroit
CYRUS C. STURGIS, M.D., Ann Arbor

11:45 **Election of Officers**

SECTION ON SURGERY

Chairman: IRA G. DOWNER, M.D., Detroit
Secretary: O. H. GILLETT, M.D., Grand Rapids

Grand Ballroom, Book-Cadillac Hotel

SYMPOSIUM ON PRE-OPERATIVE AND POST-OPERATIVE TREATMENT IN SURGERY

A. M.

9:00 **"Post-operative Pulmonary Complications"**
CAMERON HAIGHT, M.D., Ann Arbor

9:30 **"Nutrition in Surgery"**
CHARLES S. KENNEDY, M.D., Detroit

10:00 **"Pre-operative Preparation of the Patient"**
AMBROSE L. LOCKWOOD, M.D., Toronto, Canada

10:30 **"Surgical and Operating Room Technique"**
J. DERYL HART, M.D., Durham, North Carolina

11:00 **"Pre-operative Treatment and Post-operative Complications of Urological Surgery"**
HUGH H. YOUNG, M.D., Baltimore, Maryland

11:30 "Vascular Post-operative Complications of General Surgery"

ALTON OCHSNER, M.D., New Orleans, Louisiana

12:00 Election of Officers

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman: HARRY A. PEARSE, M.D., Detroit
Secretary: CLAIR E. FOLSOME, M.D., Ann Arbor

Book Casino, Book-Cadillac Hotel

A. M.

9:30 to 9:50 "Pregnancy Complicated by Uterine Fibroids"

ROBERT WILLSON, M.D., Ann Arbor

9:50 to 10:10 "Postpartum Sterilization"

WILLIAM BIRCH, M.D., Sault Ste. Marie

10:10 to 10:30 "Benign Tumors of the Ovary"

HOWARD C. WALSER, M.D., Detroit

10:30 to 11:00 "The Three Newest Hormones in Gynecology"

JACOB P. GREENHILL, M.D., Chicago

11:00 to 11:30 "Clinical Experiences in Premarital Consultation in Private Practice"

RICHARD N. PIERSON, M.D., New York City

11:30 Election of Officers
Luncheon

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman: O. B. MCGILLICUDDY, M.D., Lansing
Secretary: ROBERT G. LAIRD, M.D., Grand Rapids

OPHTHALMOLOGY

Founders Room, Book-Cadillac Hotel

A. M.

9:30 "The Use of Suction in Cataract Surgery"

E. L. COOPER, M.D., Detroit

10:00 "Sympathetic Ophthalmia"

DON MARSHALL, M.D., Kalamazoo

10:30 "The Diagnosis and Treatment of Inclusion Conjunctivitis in the New Born"

A. E. BRALEY, M.D., Detroit

11:00 "Nummular Keratitis, Report of a Case"

WM. S. CONWAY, M.D., Petoskey

11:30 "Retinal Changes Associated with Arterial Hypertension"

WALTER IVAN LILLIE, M.D., Philadelphia

OTOLARYNGOLOGY

Parlor G-H-I, Book-Cadillac Hotel

A. M.

9:30 "Indications for Simple and Radical Mastoidectomy"

HANS BRUNNER, M.D., Chicago



H. BRUNNER

Docent at the University of Vienna; formerly Chief of the Otolaryngological Department at the Allgemeine Poliklinik in Vienna; formerly President of the Austrian Otological Society; Associate Professor of Otolaryngology, University of Illinois, College of Medicine; Honorary member of the American Academy of Ophthalmology and Otolaryngology; Member of the Collegium Otolaryngologicum.

The simple mastoidectomy is indicated (a) if there is a completely developed acute or subacute mastoiditis, (b) if there are signs of an intracranial complication even in the absence of a completely developed mastoiditis. The symptoms of the acute or subacute mastoiditis which is also called "Coalescent mastoiditis," and the symptoms of a beginning complication in an incompletely or hemorrhagic mastoiditis are discussed.

The radical operation has a relative and an absolute indication. The relative indication is found in a chronic otitis affecting the bony walls of the middle ear and treated for a certain period of time without success. The absolute indication is found (a) when there are symptoms of the suppuration having passed the surgical margins of the middle ear, and (b) when symptoms of an intracranial complication are present.

11:00 "Diagnosis and Treatment of Esophageal Lesions"

WADSWORTH WARREN, M.D., Detroit

11:30 "Carcinoma of the Larynx"

ARTHUR HAMMOND, M.D., Detroit

12:00 noon "Physiology of the Nose"

DEWEY R. HEETDERKS, M.D., Grand Rapids

P. M.

12:30 Election of Officers of Section on Ophthalmology and Otolaryngology
Luncheon

SECTION ON PEDIATRICS

Chairman: Ed. A. Wishropp, M.D., Detroit
Secretary: Harry A. Towsley, M.D., Ann Arbor

Washington Room, Book-Cadillac Hotel

A. M.

9:30 **"A Kodachrome Demonstration of Some Allergic Dermatosis"**
Samuel Levin, M.D., Detroit

10:00 **"Nutritional and Metabolic Problems in the Adolescent Girl"**
Joseph Johnston, M.D., Detroit

10:30 **"Sulphathiazol Series"**
Benjamin Carey, M.D., Detroit

11:00 **"Prevention of Spread of Air-borne Infections"**
Charles F. McKhann, M.D., Boston

12:00 **Business Meeting—Election of Officers**

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman: Frank R. Menagh, M.D., Detroit
Secretary: Eugene A. Hand, M.D., Saginaw

Harper Hospital, Detroit

A. M.

9:30 to 11:00 **Clinic at Harper Hospital**

11:00 to 12:00 **Discussion of Cases**

12:30 **Election of Officers—Luncheon, Harper Hospital Cafeteria**

SECTION ON RADIOLOGY, PATHOLOGY AND ANESTHESIA

Chairman: C. K. Hasley, M.D. (Rad.), Detroit
Secretary: A. V. Wenger, M.D. (Anes), Grand Rapids
F. W. Hartman, M.D. (Path.), Detroit

Room 1406-7, Book-Cadillac Hotel

"SYMPOSIUM ON ANOXIA"

A. M.

9:00 **Chairman's Address**
Clyde K. Hasley, M.D., Detroit

9:15 **"Anoxia from the Anesthetist's Point of View"**
Ralph M. Waters, M.D., Madison, Wisconsin

9:45 **"A Study of Alpha-Lobeline, Metrazol and Coramine in Experimental Anoxia"**

Nicholson J. Eastman, M.D., Baltimore, Maryland



N. J. Eastman

A.B., Yale University, 1916; M.D., Indiana University School of Medicine, 1921. Instructor and Associate in Obstetrics, Johns Hopkins University, 1928-1933; Professor of Obstetrics and Gynecology, Peiping Union Medical College, 1933-35; Professor of Obstetrics, and Obstetrician-in-Chief, Johns Hopkins University and Hospital, respectively, since 1935. Member of American Gynecological Society; American Association of Obstetricians, Gynecologists, and Abdominal Surgeons; American Medical Association; Society of Experimental Biology and Medicine Sigma Xi.

Experimental asphyxia in dogs produced by the administration of 100 per cent helium reduplicates in its entirety the clinical syndrome of asphyxia neonatorum, that is, apnea, bradycardia, falling blood pressure, muscular flaccidity and blood oxygen levels between 2 and 4 volumes per cent. In the presence of such experimental asphyxia, alpha-lobeline, metrazol and coramine, drugs widely recommended for the treatment of asphyxia neonatorum, do not initiate respiration; on the other hand, insufflation with 100 per cent oxygen leads to restitution of spontaneous respiration within a few seconds. The reasons for the failure of these drugs in profound asphyxia are discussed.

10:30 **"Anoxia from the Pediatrician's Point of View"**
W. C. C. Cole, M.D., Detroit

10:50 **"Anoxia from the Neuro-Surgeon's Point of View"**
Frederic Schreiber, M.D., Detroit

11:10 **"Anoxia from the Pathologist's Point of View"**
Frank W. Hartman, M.D., Detroit

11:30 **Discussion, to be opened by**
A. V. Wenger, M.D., Grand Rapids
M. A. Darling, M.D., Detroit
Frank Murphy, M.D., Detroit

12:00 **Election of Officers**

DOCTOR: WILL YOU REGISTER AT EACH BOOTH AND SHOW YOUR APPRECIATION OF THE EXHIBITORS' FINE CO-OPERATION AND COSTLY OUTLAY?

PROGRAM of GENERAL ASSEMBLIES

THURSDAY AFTERNOON
September 26, 1940

Fourth General Assembly

Grand Ballroom, Book-Cadillac Hotel

O. O. Beck, M.D., Presiding

L. Fernald Foster, M.D., and Ed. A. Wishropp, M.D., Secretaries

P. M.

1:30 "Fundal Changes Associated with General Diseases"

Walter Ivan Lillie, M.D., Philadelphia, Pa.



W. I. Lillie

Professor and Head of Department of Ophthalmology, Temple University School of Medicine; Chief Ophthalmologist, Temple University Hospital, Philadelphia; Consulting Ophthalmologist: Shriners Hospital for Crippled Children, Philadelphia, Norristown State Hospital, Norristown, Pa., Eagleville Sanatorium, Eagleville, Pa. Member: American Medical Association, American Ophthalmological Society, American Academy of Ophthalmology and Otolaryngology, College of Physicians of Philadelphia, American College of Surgeons.

The paper will cover the ophthalmologic changes associated with diabetes, the anemias, leukemias and associated conditions. Lantern slides will be used to portray the characteristic ophthalmologic features.

2:00 "Industrial Aspects of Dermatitis and Eczema"

John G. Downing, M.D., Boston, Mass.



J. G. Downing

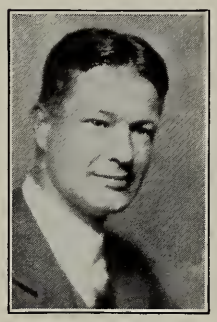
M.D. Harvard Medical School, 1915. Assistant Professor of Dermatology, Tufts College Medical School. Dermatologist at St. Elizabeth's Hospital, Boston City Hospital, Beth Israel Hospital, U. S. Public Health Service. Chairman, Section of Dermatology and Syphilology, A.M.A., 1939-40. Member, Board of Directors, American Academy of Dermatology and Syphilology. Member, American Dermatological Association, New England Dermatological Society, Society for Investigative Dermatology, Industrial Surgeons.

The physical and chemical causes in industry that are capable of producing cutaneous eruptions are classified. The method of diagnosis, including the various cutaneous tests, are discussed and evaluated. The rôle of secondary infection is analyzed, based on a study of three hundred cases. Prognosis, treatment, and prevention are discussed in detail. A few legal aspects are included.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "The Medical and Surgical Significance of Avitaminosis"

Thomas T. Mackie, M.D., F.A.C.P., New York, N. Y.



T. T. Mackie

A.B., Harvard; M.D., Columbia; Certificate London School of Hygiene and Tropical Medicine; D. T. M. & H. (England); Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University; Associate, Department of Public Health and Preventive Medicine, Cornell University Medical College; Attending Physician, Roosevelt Hospital; Consulting Physician, New York Infirmary for Women and Children; Consulting Physician in Tropical Medicine, Beekman Street Hospital. Societies: A.M.A. American College of Physicians, American Clinical and Climatological Association, Secretary American Gastro-Enterological Association, Royal Society of Hygiene and Tropical Medicine, President-elect American Society of Tropical Medicine.

Research in vitamin physiology has demonstrated that avitaminosis occurs in two stages. The first entails disturbance of intracellular function and consequent disturbance of normal physiology. This may be accompanied by symptoms. The second and later stage entails disturbance of structure accompanied by symptoms and by physical signs. First degree avitaminosis is common in the medical and surgical wards of a general hospital. It may result from the disease process itself, insufficiently protective therapeutic diets, and nutritional imbalance produced by conventional postoperative regimes. Avitaminosis may contribute to the disease process, and may condition the appearance of serious complications in both medical and surgical patients.

3:30 "Chemotherapy in the Acute Infectious Diseases"

John A. Toomey, M.D., Cleveland, Ohio

Associate Professor of Pediatrics, Western Reserve University; Physician in Charge, Division of Contagious Diseases, City Hospital, Cleveland; Fellow of American Academy of Pediatrics American Pediatric Society, Society of American Bacteriology and Society of Experimental Biology and Medicine.

4:00 "Complications of Appendicitis"

Alton Ochsner, M.D., New Orleans, La.



Alton Ochsner

B.A., University of South Dakota, 1918; M.D., Washington University, St. Louis, Mo., 1920; spent 3½ years studying in Europe (Switzerland and Germany). 1927 to present time, Professor of Surgery and Head of Department of Surgery, Tulane University School of Medicine, New Orleans; Senior Visiting Surgeon and Director of Tulane Surgical Unit, Charity Hospital, New Orleans; Consulting Surgeon, Illinois Central Hospital, New Orleans; Consultant in Thoracic Surgery, Eye, Ear, Nose and Throat Hospital, New Orleans. Member numerous medical and surgical societies. Honorary member Alpha Omega Alpha; Sigma Xi; Omicron Delta Kappa; Alpha Zeta Circle (National Leadership Society);

D.Sc. (Hon.) University of South Dakota, 1936; Co-editor of Surgery, Secretary Southern Surgical Association; Regent American College of Surgeons; Member Editorial Board of International Surgical Digest; Archives of Surgery; Journal of Digestive Diseases and Nutrition; Surgery, Gynecology and Obstetrics. Author of many outstanding works.

Unfortunately, the mortality rate from appendicitis is still alarmingly high and is the result of extension of the infection beyond the confines of the appendix causing complications. Therefore, the consideration of the treatment of complications of appendicitis is of value. The most frequently encountered complication of acute appendicitis is peritonitis, which may be either localized or diffuse. The treatment consists of the prevention of ileus, the combating of infection by chemotherapeutic agents, and the prevention of toxemia. In addition to the peritonitis and its associated ileus, other complications are residual infections in the peritoneal cavity which are likely to be overlooked. These occur most frequently in the cul-de-sac of Douglas, the right iliac fossa, the subphrenic areas either above or below the liver, and on the left side of the abdomen. Each of these complications is discussed as regards the diagnosis and therapy. A final complication is portal thrombophlebitis which offers a very poor prognosis.

4:30 End of Fourth General Assembly

THE EXHIBITORS WILL REMAIN IN THEIR BOOTHS UNTIL 6:00 P. M. FOR YOUR CONVENIENCE

THURSDAY EVENING
September 26, 1940

Fifth General Assembly

(for M.S.M.S. Members Only)

Grand Ballroom, Book-Cadillac Hotel

Council Chairman: HENRY R. CARSTENS, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

SMOKER

Admission by Card Only

P. M.

9:00

1. **The Wayne County Medical Society String Quintette**
2. **Leger de Main by Bernard W. McDougall, M.D., Detroit**
3. **The W.C.M.S. Glee Club**
4. **"Before or After"—a blackout by the W.C.M.S. Players**
5. **"The Gastro-Intestinal Tract" by Judge Robert Toms, Detroit**
6. **The W.C.M.S. String Quintette**
7. **"Instead Of"—a five-act play (one minute per act!) by the W.C.M.S. Players**
8. **The W.C.M.S. Glee Club**

10:00 DUNKING THE PRETZELS—a two-handed Skit by the entire company

Host—The Michigan State Medical Society

End of the Fifth General Assembly

FRIDAY MORNING
September 27, 1940

Sixth General Assembly

Grand Ballroom, Book-Cadillac Hotel

PREVENTIVE MEDICINE ASSEMBLY

A. H. MILLER, M.D., Presiding

L. FERNALD FOSTER, M.D., and FRANK R. MENAGH, M.D., Secretaries

A. M.

9:30 "Responsibility of the Medical Profession in Industrial Hygiene"

PAUL A. NEAL, M.D., Washington, D. C.



P. A. NEAL

M.D., Vanderbilt University, 1927; Commissioned as Assistant Surgeon, Regular Corps, U. S. Public Health Service, 1928; 1929-34, on duty in Europe, attached to Consular Office on Foreign Quarantine detail; 1934 to present time, Division of Industrial Hygiene, National Institute of Health; at present Action Chief, Division of Industrial Hygiene. Member of A.M.A., American Public Health Association, American Association for the Advancement of Science, American Association of Industrial Physicians and Surgeons, and Association of Military Surgeons.

Due to the fact that only about 15 per cent of the workers in this country have full-time medical services provided them, the responsibility for furnishing such services is not limited to the so-called industrial physician, but is shared to a very large extent with the general practitioner. In order to fulfill his responsibility successfully, the physician must first gain a knowledge of the scope of industrial hygiene, its objectives and the functions essential in achieving these objectives. These are discussed in the paper, with special emphasis placed on the importance of industrial hygiene in conserving manpower in industry. Under normal conditions the maintenance of the health of workers is an important problem and with the increase in industrial activities envisaged in our national defense program, this problem will be magnified manifold. The opportunities of the medical profession in the field of industrial medicine are also discussed.

ACKNOWLEDGMENT: The Michigan Department of Health is sincerely thanked for its sponsorship of this lecture.

10:00 "The Primary Tuberculous Infection in Adults"

HENRY C. SWEANY, M.D., Chicago, Ill.



H. C. SWEANY

M.D., Rush Medical College, 1921. Immediately appointed to the Directorship of the Municipal Tuberculosis Sanitarium Laboratory, which position he now holds. During this time the staff was built up from four to thirty-two members (not including twenty-five volunteers). In 1929 he was U. S. delegate to the Pan-American Congress at Rio and has been appointed again this year for the same Congress at Cordova, Argentina. In 1936 he served as U. S. Delegate to the International Tuberculosis Union at Lisbon, Portugal. Has been on the National Tuberculosis Association Board many times, and in 1936 was Vice President of the National Tuberculosis Association. Member of twelve medical and scientific societies in the U. S., including the American College of Physicians, and the American Medical Association. Has certificates from the American Board of Internal Medicine and the American Board of Pathology. His publications include works in pathology and bacteriology of tuberculosis, treatment of tuberculosis, non-tuberculous lung diseases, silicosis, and blood chemistry.

The "primary tuberculous complex," as designated by Ranke, but described earlier in human beings by Parrot, Ghon and others, is generally understood as a local lesion or scar which is in direct relation to similar lesions along the course of the lymphatics towards the blood stream. This early lymphatic progress of the disease is so constant in experimental animals that it has been called the "Cornet Cohnheim law of similar adenopathies." It has been also considered the same for first infections in human beings. So far as most childhood infections are concerned this is true, but variations of dosage and age of the individual may cause such an alteration of the picture that it is not always recognized by pathologists and scarcely at all by roentgenologists and clinicians. The underlying causes, the means of identification, and importance of such "atypcial" primary infections, especially as found in adults, will be presented.

ACKNOWLEDGMENT: The Michigan Tuberculosis Association is sincerely thanked for its sponsorship of this lecture.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Hospital Organization and Staff-work as Factors in Maternal Health"

SAMUEL A. COSGROVE, M.D., Jersey City, N. J.



S. A. COSGROVE

M.D., Cornell University Medical College; 1907, Clinical Professor of Obstetrics, Faculty of Medicine, Columbia University; Medical Director and Attending Obstetrician Margaret Hague Maternity Hospital; Attending Obstetrician Jersey City Medical Center; Consulting Obstetrician Christ Hospital, Jersey City; Bayonne Hospital, Bayonne; North Hudson Hospital, Weehawken; Holy Name Hospital, Teaneck; Mountainside Hospital, Montclair; Monmouth Memorial Hospital, Long Branch; Diplomate American Board of Obstetrics and Gynecology; Fellow, American College of Surgeons; American Association of Obstetrics, Gynecology and Abdominal Surgery; American Gynecological Society; New York Obstetrical Society; New York Academy of Medicine, et cetera.

"Maternal Health" has very broad implications contributing to which are a host of sociological, economic, hygienic and medical factors. To most physicians the last is of most immediate interest. This factor alone is multifold; that which touches me, and I hope most of you, most closely, is that phase of it pertaining to the hospital and its staff. Administration, nursing service and medical staff must sympathetically cooperate for best results. Such coöperation must embrace organization, technics, control of practice and education of doctors, nurses and patients. Each of these details is outlined in a practical manner.

ACKNOWLEDGMENT: The W. K. Kellogg Foundation is sincerely thanked for its sponsorship of this lecture.

11:30 "Psychochomatic Aspects of Illness"

H. FLANDERS DUNBAR, M.D., New York City

ACKNOWLEDGMENT: The McGregor Health Foundation is sincerely thanked for its sponsorship of this lecture.

12:00 "Observations on Deficiencies of the Vitamin B Group"

L. EMMETT HOLT, JR., M.D., Baltimore, Maryland



L. E. HOLT

M.D. Johns Hopkins, 1920. Following interneship in internal medicine at Presbyterian Hospital, New York, and in pediatrics at Babies Hospital, New York, has been a member of full-time staff of the Department of Pediatrics at Johns Hopkins. He has done much investigation of disease, largely along biochemical lines. Has dealt with rickets, tetany, calcium metabolism, fat metabolism and B group of vitamins.

The paper will discuss what is known of the function of the B vitamins, particularly the three factors, thiamin, riboflavin and nicotinic acid. Attention will be called to recent additions to the clinical picture of these deficiencies to newer laboratory procedures for detecting deficiencies and to clinical interrelationships between these factors.

ACKNOWLEDGMENT: The Children's Fund of Michigan is sincerely thanked for its sponsorship of this lecture.

P. M.

12:30 End of Sixth General Assembly Luncheon

DON'T FAIL TO VISIT THE $50,000 EXHIBIT ARRANGED FOR YOU

FRIDAY AFTERNOON
September 27, 1940

Seventh General Assembly
Grand Ballroom, Book-Cadillac Hotel

J. Earl McIntyre, M.D., Presiding

L. Fernald Foster, M.D., and O. H. Gillett, M.D., Secretaries

P. M.

1:30 "Surgical Dyspepsias"

Ambrose L. Lockwood, M.D., Toronto, Ontario



A. L. Lockwood

M.D., McGill University, 1910. Spent several years in postgraduate work in New York, London and Germany. Caught in Berlin at outbreak of the Great War—escaped and joined up with the Royal Army Medical Corps and served as a surgical specialist with them five years. Awarded the D.S.O., M.C., the Mons Star, and was three times mentioned in dispatches. After the war he returned to Mayo Clinic, and was on the Surgical Staff there till the summer of 1922, when he established his own Clinic in Toronto. Has published numerous treatises in the field of Thoracic and General Surgery, and has recently published an exhaustive summary of his experiences in War Surgery through the British Medical Journal. Member Canadian Medical Association, Ontario Medical Association, American Association for the Study of Goiter, and the Society of Military Surgeons.

Thorough routine examination of all patients from head to foot regardless of their complaints and periodic health examinations of apparently well people have greatly extended the field of the "Dyspepsias."

Greater accuracy in the diagnosis of diseases of the gastrointestinal tract has revealed serious conditions overlooked hitherto, and has materially increased the problems that perplex the profession in determining the cause, course, and measures for relief of symptoms vaguely referred to as the "dyspepsias." In addition, there has been for fifteen years a pleasing and ever decreasing mortality in dealing surgically with these so-called "surgical dyspepsias."

2:00 "Broncho-Esophagology in Relation to General Practice"

Chevalier L. Jackson, M.D., Philadelphia, Pa.



C. L. Jackson

M.D., University of Pennsylvania, 1926; M.Sc. (Med.) Graduate School of Medicine, University of Pennsylvania, 1930. Professor of Broncho-Esophagology, Temple University School of Medicine and Hospital; Bronchoscopist to Lankenau Hospital and Mary J. Drexel Home, Chestnut Hill Hospital, Eagleville Sanatorium and Hospital; Consultant in Bronchoscopy, Montgomery Hospital, Norristown, Pa. Fellow American Academy of Ophthalmology and Otolaryngology; American Laryngological Association; American Broncho-Esophagological Association; American Association for Thoracic Surgery; American College of Surgeons; American Laryngological, Rhinological and Otological Society, and many medical societies in America and abroad.

Too many family physicians still look upon bronchoscopy and esophagoscopy as stunts, curiosities of medicine. As a matter of fact, these procedures as well as the new branch of medicine that they have been largely responsible for developing — broncho-esophagology—are making very significant contributions which should be part of the common knowledge of the well informed practitioner. For example, since we have learned something about bronchology, we know that many things may cause a wheeze besides asthma—"all is not asthma that wheezes"—a wheeze may mean "anything from peanuts to cancer." It is also true that, since we have learned something about esophagology, we are less likely to make a diagnosis of hysteria when a patient develops dysphagia from an esophageal cancer. Practical points in connection with the diagnosis and treatment of thoracic disease have resulted from the development of broncho-esophagology, which comprises the sum total of our knowledge of the bronchi and esophagus—the anatomy, physiology, pathology, clinical diagnosis and treatment of bronchial and esophageal disease.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Tumors of the Scalp and Skull and Their Significance as Revealed by Roentgenograms"

John D. Camp, M.D., Rochester, Minn.



J. D. Camp

M.D., Boston University, 1922; Fellow in Roentgenology, Mayo Foundation, 1922-24; Assistant Roentgenologist, Massachusetts General Hospital, 1924-27; Visiting Roentgenologist Massachusetts General Hospital, 1927-28; Assistant in Roentgenology, Harvard Medical School, 1924-28; Associate Roentgenologist, Mayo Clinic at present. Associate Professor of Radiology, Mayo Foundation, University of Minnesota. Lieut. Commander U. S. Naval Reserve; Fellow American College of Radiology; Diplomate American Board of Radiology; Member American Medical Association, The Radiological Society of North America (Pres. 1937), the American Roentgen Ray Society, Sigma Xi.

Tumors of the scalp may be grouped as benign and malignant and further divided into those which are limited to the scalp itself and those which are manifestations of underlying lesions in the skull. The latter group is particularly important because the tumor masses are often the result of intracranial disease or malformations, constitutional disorders or disseminated skeletal lesions. Experience indicates that without roentgenograms the differentiation of tumors involving the scalp is not to be depended on and the removal of tumors of the scalp without a roentgenologic check on the extent of the lesion may be hazardous. The importance of the x-ray examination will be shown by means of representative cases and the roentgenologic features of the lesions involved will be discussed in detail.

3:30 "The Present Status of Endocrinology in Gynecology"

Jacob P. Greenhill, M.D., Chicago, Ill.



J. P. Greenhill

M.D., Johns Hopkins Medical School, 1919; Professor and Vice Chairman, Department of Obstetrics and Gynecology, Loyola University Medical School; Professor Gynecology, Cook County Graduate School of Medicine; Attending Gynecologist Cook County Hospital; Member American Association Obstetricians, Gynecologists and Abdominal Surgeons, Chicago Gynecological Society, Central Association of Obstetricians and Gynecologists, Johns Hopkins Surgical Society, American Association of Anatomists, and others. Author of "Office Gynecology," Year Book Publishers Chicago, 1939; Editor of "Gynecology," Year Book of Obstetrics and Gynecology.

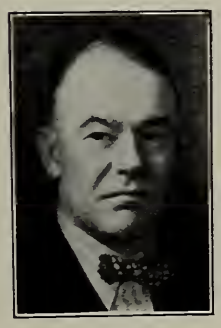
The clinical application of endocrine therapy in gynecology is confusing. The chief reason for this is

excessive enthusiasm based upon laboratory experiments and insufficient human controls. The indications for endocrine therapy in gynecology are limited in number. The pituitary hormones have a most restricted field of activity. The anterior pituitary-like hormones have a beneficial effect in some cases of functional uterine bleeding. The gonadotropic hormones found in pregnant mare serum will produce ovulation in some cases. Estrogen is of use for disturbances of the menopause, gonorrheal vulvo-vaginitis and some cases of senile vaginitis and pruritus vulvæ. Progesterone is helpful in some cases of threatened abortion, habitual abortion, dysmenorrhea and premenstrual tension. The male hormone testosterone proprionate is of value in some cases of excessive uterine bleeding, dysmenorrhea, premenstrual painful breasts and premenstrual tension. Thyroid therapy is helpful in many gynecological disturbances.

In order to use hormone therapy intelligently it is important to understand the physiology of the preparations used.

4:00 "The Changing Picture of Diabetes"

REGINALD FITZ, M.D., Boston, Mass.



REG. FITZ

Lecturer on the History of Medicine, Harvard Medical School; Member Council on Medical Education and Hospitals, American Medical Association; Member Board of Regents, American College of Physicians; Member American Board of Internal Medicine; Consulting Physician, Peter Bent Brigham Hospital, Boston.

The picture of diabetes has changed remarkably in the last thirty years. Because of insulin diabetic patients live to be observed for long periods of time. The complications of diabetes have become the important feature of the disease rather than the disease itself. By recognizing complications early—surgical complications, vascular complications or the early stages of diseases like cancer which may develop in the diabetic individual entirely independent of diabetes—steps may be taken to practice intelligent preventive medicine and thus to afford the diabetic as good if not a better life expectancy than can be afforded his non-diabetic friend. These facts are well brought out by comparing diabetes as Naunyn saw it in 1906 with diabetes as any modern doctor sees it today.

4:30 End of Sixth General Assembly

END OF THE CONVENTION

INDUSTRIAL HEALTH AND PREPAREDNESS

The keynote of the Detroit meeting of the Industrial Physicians and Surgeons, held coincident with the 75th Annual Meeting of the Michigan State Medical Society, will be Industrial Medicine in relation to Medical-Military Problems.

The Industrial Association will hold its clinic and lectures at Harper Hospital, Detroit, Tuesday, September 24, 9 A. M. to 4 P. M. The banquet at 6:30 P. M. will be held at the Book-Cadillac Hotel.

With the possible imminence of mobilization, many industrial health problems confront the nation. Those physicians who know how to solve these problems will be in demand by the government. All M.S.M.S. members are invited to the sessions of the Michigan Association of Industrial Physicians and Surgeons. (Program on page 708).

TECHNICAL EXHIBITS

Abbott Laboratories **Space No. 32**
North Chicago, Illinois

Abbott Laboratories, North Chicago, Illinois, cordially invite all members of the profession and associates to call at their exhibit in space No. 32 to become acquainted with their latest research products, including anesthetics, antiseptics, hypnotics and chemotherapeutic specialties. Professional representatives will be on hand to answer all queries. A hearty welcome awaits you.

A. S. Aloe Company **Space No. 80**
St. Louis, Missouri

The A. S. Aloe Company will exhibit an unsually complete showing of general equipment for doctors and hospitals, featuring an interesting diorama of Steeline furniture for the treatment room. Interesting specialties will be shown, including the Washington University Portable Obstetric Table. Aloe representatives, E. E. Davis and M. R. Pregerson, will be in charge of the display.

The Arlington Chemical Company **Space No. 53**
Yonkers, New York

The Arlington Chemical Company invites you to inspect their line of Proteins and Pollens for the diagnosis and treatment of allergic conditions; also their Pharmaceutical Products, including Aminoids —a combination of amino acids of therapeutic value in malnutrition, underweight and loss of appetite. Dr. Frazer and Dr. Kitzman will be happy to discuss allergy problems.

The Baker Laboratories **Space No. 58**
Cleveland, Ohio

Baker's complete line of infant foods are on display. Baker's **Modified Milk** (powder and liquid) is a completely prepared milk in which the composition as well as the proportions of the protein, fat, carbohydrate, vitamin and mineral content have been so altered and adjusted as to closely simulate breast milk. **Melcose** is also a completely prepared milk (liquid only) and very economical. **Melodex** (maltose and dextrin) is made especially for modifying fresh or evaporated milk formulas.

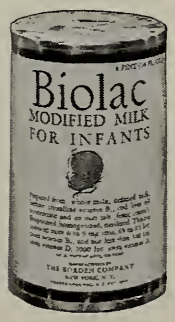
Bard-Parker Company **Space No. 66**
Danbury, Connecticut

Bard-Parker will exhibit the following products: Rib-Back surgical blades; Renewable Edge Scissors; Hematological Case for obtaining blood samples at the bedside; Ortholator for obtaining accurate dental radiographs; Formaldehyde Germicide and Instrument Containers for the rust-proof sterilization of surgical instruments.

Barry Allergy Laboratory, Inc. **Space No. 35**
Detroit, Michigan

Barry Allergy Laboratory, Inc., will display diagnostic and individualized services for the various specialties bordering or connecting with allergy, as well as its materials, which can be easily used by the general practitioner. Individualized treatment based on the patient's individual skin test reactions and history will be stressed.

The Borden Company **Space No. 61**
New York, New York



Full information on **Biolac,** the new **liquid** modified milk for infants, will be available at the Borden Booth. Also exhibited will be other Borden products for infant feeding, notably Klim, Dryco, Special Dryco, Beta Lactose, Merrell-Soule Products and Borden's Irradiated Evaporated Milks.

The Burrows Company **Space No. 51**
Chicago, Illinois

The Burrows Company will feature the new and amazing "Major" Plaster Bandage, the cast material that is removed without the aid of any instruments. Other features will include: The Duod-O-Vac (Au-

tomatic Siphon Suction Apparatus)—The Superior Electric Breast Pump—and the Superior Suction and Ether Unit.

Cameron Surgical Specialty Company **Space No. 40**
Chicago, Illinois

See the new Cameron Color-Flash Clinical Camera, the Projectoray and the latest Cameron-Lempert Headlite. Latest developments in electrically lighted Diagnostic and Operating instruments for all parts of the body will also be shown. Of special interest will be the new inexpensive office model Radio Knife and other electro-surgical units.

S. H. Camp & Company **Space No. 17**
Jackson, Michigan

If you are interested in scientific supports, this is an invitation to investigate Camp Supports for prenatal, postnatal, visceroptosis, hernia and orthopedic conditions. There are new additional useful ideas in designs that will interest you.

The Coca-Cola Company **Space No. 74**
Atlanta, Georgia

Coca-Cola will be served to the physicians with the compliments of the Coca-Cola Company.

Cottrell-Clarke, Inc. **Space No. 15**
Detroit, Michigan

Cottrell-Clarke, Inc., Detroit, or the Physicians' Stationery Company (their former corporate name) as they were long familiarly known to our own Michigan medical men, will show many new, interesting developments in case records and case record keeping at this year's M.S.M.S. exhibit.

R. B. Davis Company **Space No. 75**
Hoboken, New Jersey



You are invited to enjoy a drink of delicious Cocomalt at the R. B. Davis Booth. Cocamalt is refreshing, nourishing and of the highest quality. It has a rich content of Vitamins A, B_1 and D, Calcium and Phosphorus to aid in the development of strong bones and sound teeth; Iron for blood; Protein for strength and muscle; Carbohydrate for energy.

Detroit X-Ray Sales Company **Spaces No. 69-70**
Detroit, Michigan

The Detroit X-Ray Sales Company will have on display a new design of automatically controlled X-Ray equipment for the general practitioner, which will be of interest. The medical profession is cordially invited to witness demonstrations of this latest proof that **Mattern,** as usual, is again a step ahead in the x-ray field.

Duke Laboratories, Inc. **Space No. 24**
Stamford, Connecticut

The Duke Laboratories, Inc., will demonstrate the original, American-made, stretchable, adhesive-surfaced bandage, Elastoplast, approved by the American College of Surgeons. Elastoplast is used whenever compression and support are required, and is rapidly taking the place of the Unna Boot in the treatment of varicose ulcers. Samples of Mediplast, the Elastoplast speed compress, and the Elastoplast Occlusive Dressings, used in the treatment of minor injuries, may be had. Samples of Nivea and Basis Soap—the prescriber's cosmetics, may also be had.

H. G. Fischer & Company **Space No. 7**
Chicago, Illinois

H. G. Fischer & Co. 1940 models of x-ray and short wave apparatus are so distinctive, both in improved performance and in various instances greatly lowered in price, that every physician should consider inspection a convention obligation. The complete H. G. Fischer & Co. line includes shockproof x-ray apparatus, short wave units, combination cabinets, galvanic and wave generators, ultra violet and infra-red lamps and many other units, accessories and supplies. Physicians attending the convention are invited to ask for demonstrations of apparatus in which they are interested and to consult with Fischer representative regarding technics made available by Fischer apparatus.

General Electric X-Ray Corporation **Space No. 54**
Detroit, Michigan

We cordially invite the physicians and their wives who attend this meeting to make use of the lounge facilities provided at our booth for their comfort. We particularly look forward to a visit from our customers and invite all physicians who may have technical problems, to discuss them with our staff in attendance. For those who are interested, we would welcome the opportunity to tell you of our contribution in new and improved physiotherapy and x-ray equipment since the 1939 State Meeting.

Gerber Products Company **Space No. 41**
Fremont, Michigan



Ten new foods which have just been added to the Gerber Foods will be on display in the Gerber Booth. Copies of both the professional literature and the booklets for mothers are there for your examination and will be sent to you on request.

Hack Shoe Company **Space No. 26**
Detroit, Michigan

Hack's Prescription Shoe Service will again present its annual display of correct shoes for men, women and children. Designed for style but built for comfort, Hack Shoes are worn by an increasingly large number of doctors, their wives and families. Located on the 5th floor of the Stroh Building at 28 West Adams Avenue (on Grand Circus Park) in Detroit, the Hack Shoe Company is conveniently located for those attending the convention.

Hanovia Chemical and Mfg. Company **Space No. 33**
Newark, New Jersey

The very latest in ultra-violet equipment will be demonstrated, including the outstanding uses of ultra-violet radiation in the fields of science, medicine and public health. Don't fail to see our new line of self-lighting ultra-violet high-pressure mercury arc lamps, Short and Ultra Short wave apparatus, Sollux Radiant Heat Lamps and our latest development, quartz ultra-violet lamps for air sanitation.

The J. F. Hartz Co. **Spaces No. 55-56-57**
Detroit, Michigan

Greetings to our medical friends! For over forty years it has been the privilege of the J. F. Hartz Company to serve you and your patient.
May we ask your attendance at our display, which is occupying enlarged space during this convention? We manufacture a fine line of pharmaceuticals and ampules under strict laboratory control, as is evidenced by no citations from either the State or Federal Food and Drug Departments. We also direct your attention to the Hartz-o-therm, a low-price, efficient short wave which has met with the approval of the profession.

H. J. Heinz Company **Space No. 11**
Pittsburgh, Pennsylvania

Physicians interested in prescribing soft diets will be interested in the new Heinz exhibit where Strained and Junior Foods are attractively displayed. Miss Elizabeth Elder, Mr. L. A. Davis and Mr. E. J. Cooley are in attendance and will be happy to supply information on these foods.

Holland-Rantos Company **Space No. 81**
New York, New York



Modern contraceptive technics will be demonstrated at the booth of the Holland-Rantos Company based on the use of medically approved contraceptives — the Koromex diaphragm, the Koromex jelly, the H-R Emulsion jelly, and many other of the well known products of this company.

The display will incorporate a motion picture on this subject and another motion picture on the diagnosis and treatment of Trichomonas Vaginalis Vaginitis. Please be sure to call and get your copy of the Physician's Guide and samples of the Koromex and H-R Emulsion jelly.

Horlick's Malted Milk Corp. **Space No. 31**
Racine, Wisconsin

The remarkable digestibility of Horlick's even in difficult cases of infant and invalid diet has long been known. Recent laboratory tests show that the curd tension of Horlick's prepared with water is practically zero. Horlick's used as a modifier for milk also registered a lower curd tension than plain milk alone. This ease of digestion coupled with high nutritive value, derived both from full-cream milk and malted grain, have made Horlick's especially useful as a food-drink in fevers, post-operative cases and for the aged. Note especially the unique convenience of the Tablets for regular feeding of ambulatory cases of peptic ulcer.
You are cordially invited to visit our exhibit in Detroit.

The G. A. Ingram Company **Spaces No. 63-64-65**
Detroit, Michigan

The G. A. Ingram Company will, as usual, have several items of interest on display at their booth. Several new Burdick physiotherapy units will be on display, which will be of interest to everyone.

Jones Metabolism Equipment Co. **Space No. 9**
Chicago, Illinois

Exhibit will be in charge of one who is fully competent to discuss the wider scope of the uses of the metabolism test and its clinical interpretation. The mechanical features which have long been exclusively those of the Motor Basal will be demonstrated together with refinements which have still further assured leadership of the Motor Basal in the metabolism field.

A. Kuhlman & Company **Spaces No. 27-28**
Detroit, Michigan

A. Kuhlman & Company will demonstrate a new Waterless Basal Metabolism Apparatus, a new low-priced Portable Electro Cardiograph Apparatus, Modern Office Furniture, a number of Urological Specialties, and a selected line of Surgical Instruments.

Lea & Febiger **Space No. 36**
Philadelphia, Pennsylvania

Lea & Febiger will exhibit the following new works: Adair's Obstetrics and Gynecology, Clement's Anesthesia, Comroe on Arthritis, Eller on Tumors of the Skin, Hayden on The Rectum and Colon, Lewin on The Foot and Ankle, Master's Electrocardiogram, A Trudeau Foundation Study—Artificial Pneumothorax, Rony on Obesity and Leanness, Schwartz & Tulipan on Occupational Diseases of the Skin, Thienes' Toxicology, Vaughan on Cleft Lip. Advance material will be shown on Anderson's Diagnosis, Ballenger's Otology and Dennie & Pakula on Congenital Syphilis. New editions of many standard works will also be shown.

Lederle Laboratories, Inc. **Space No. 12**
New York, New York

The exhibit will feature a motion picture on post-encephalitic Parkinsonism and the response to treatment with Bellabulgara (Bulgarian Belladona). There will also be displayed Pharmaceutical Specialties together with Serums and Globulin Modified Antitoxins. All physicians are cordially invited to attend the booth and view the film on treatment of the Parkinson Syndrome.

Libby, McNeill & Libby **Spaces No. 76-77**
Chicago, Illinois

The exhibit of Libby, McNeill & Libby will feature a novel presentation of the story of Libby's specially homogenized Baby Foods and Libby's Evaporated Milk. A marionette stage occupies a prominent position in the booth. The action of the puppets is synchronized with a sound slide film so that the story is both pictorial and verbal. Doctors hear the story by listening in at handily placed cradle telephones. This presentation is supplemented by illuminated photomicrographs and displays of the Libby products which are being so widely used in infant feeding.

Liebel-Flarsheim **Space No. 3**
Cincinnati, Ohio

Liebel-Flarsheim will exhibit a complete line of the well-known Short Wave Generators, as well as the famous Bovie Electro-Surgical Units and the Raysun Ultra-Violet and Infra-Red Therpeutic Lamp.

A cordial invitation is extended to visit the Liebel-Flarsheim Booth to inspect this new apparatus and have it demonstrated to you.

Eli Lilly & Company **Space No. 71**
Indianapolis, Indiana

Eli Lilly and Company produced the first commercial preparation of Insulin, contributed to development of liver therapy, and has been responsible for many other therapeutic advancements. Information concerning all Lilly products will be available at the Lilly exhibit where "Merthiolate" (Sodium Ethyl Mercuri Thiosalicylate, Lilly), "Sodium Amytal" (Sodium Iso-amy Ethyl Barbiturate, Lilly), and other important products will be featured.

J. B. Lippincott Company **Space No. 2**
Philadelphia, Pennsylvania

Among the newer Lippincott publications on display will be the widely acclaimed "Modern Dermatology and Syphilology" by Becker and Obermayer, and, of course, the phenomenally successful Thorek's "Modern Surgical Technic." Other important new works include Dickson and Diveley's "Functional Disorders of the Foot," Scudder's "Shock," and Barborka's "Treatment by Diet." Every physician who has children among his patients will welcome Kigelmass' "Newer Nutrition in Pediatric Practice."

M & R Dietetic Laboratories, Inc. **Space No. 43**
Columbus, Ohio



Similac, a food for infants deprived partially or entirely of maternal milk, will be displayed by M & R Dietetic Laboratories, Inc. Messrs. D. O. Cox and L. A. MacDonald will appreciate the opportunity to discuss the merit and suggested application of this product for the normal or special case.

Mead Johnson & Company **Spaces No. 72-73**
Evansville, Indiana

Servamus Fidem. Mead Johnson & Company will exhibit several new products in addition to Dextro-Maltose, Pablum and Oleum Percomorphum. They will also have on display various examples of the slogan "Servamus Fidem"—We Are Keeping the Faith.

Medical Arts Surgical Supply Company
Grand Rapids, Michigan **Spaces No. 59-60**

The Medical Arts Surgical Supply will display a fine representation of modern office equipment, including some of Grand Rapids' own office desks and chairs. A very complete line of stainless steel instruments will be shown, also the new McKesson metabolor and numerous suction pumps.

Medical Case History Bureau **Space No. 25**
New York, New York

Economical Case History System. In addition to the economy factor, the Info-Dex Record Control System features a really ingenious yet simple diagnostic guide. Info-Dex catalogs histories, developments and diagnoses in such a manner that they are instantly available for reference. An exhibit of this compact, efficient filing system may be found in Booth No. 25. A few minutes spent in studying the advantages of modern medical filing will be repaid many times in increased office efficiency.

Medical Protective Company **Space No. 16**
Wheaton, Illinois

The most exacting requirements of adequate liability protection are those of the professional and liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representatives there: Mr. A. G. Schulz, Mr. J. O. Wilson and Mr. O. N. Harten. They are thoroughly trained in Professional Liability underwriting.

The Mennen Company **Space No. 67**
Newark, New Jersey

The Mennen Company will exhibit their two baby products—Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90 per cent of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and receive your kit containing demonstration sizes of their shaving and after-shave products.

Merck & Company, Inc. **Space No. 13**
Rahway, New Jersey

Merck & Co., Inc., are featuring the following preparations at their exhibit: The Vitamins—individual vitamins of the B complex, including those recently synthesized in the Merck Research Laboratories—Vitamin B_6 and Pantothenic Acid. Erythrol Tetranitrate Merck—for arterial hypertension—new, improved tablets. Mecholyl—for the treatment of arthritis and chronic ulcers by the method of iontophoresis. Vinethene—an inhalation anesthetic agent for short operative procedures. Information on Merck Medicinal Specialties, Prescription Chemicals, Vitamins, and other Merck products may be obtained at the Merck booth.

The Wm. S. Merrell Company **Space No. 44**
Cincinnati, Ohio

The Merrell exhibit will feature new prescription specialties of timely interest, in addition to several well-known therapeutic agents of established usefulness. Physicians are invited to drop by for a personal supply of Catarrhal Oravax, for protection against the common cold.

Michigan Medical Service
Michigan Hospital Service **Space No. 68**
Detroit, Michigan

Visit this booth where representatives will distribute literature and explain the Medical Service Plan and the Surgical Benefit Plan of Michigan Medical Service and the Hospital Service Plan of Michigan Hospital Service. A chart explaining in detail the necessary "paper work" of the attending physician will be displayed. Doctor, come in and see what your organization and the hospitals' organization are doing *(See page 596).*

C. V. Mosby Company **Space No. 50**
St. Louis, Missouri

Doctors attending the Michigan State Medical Society Convention are cordially invited to visit the Mosby Booth—there to inspect the new publications which will be on display. Outstanding new volumes on surgery, allergy, dermatology, operative orthopedics, nervous and mental diseases, heart diseases, x-ray, gynecology and obstetrics, materia medica, and practice of medicine will be shown. Browse through this new material at the Mosby Booth.

The Muller Laboratories **Space No. 52**
Baltimore, Maryland

Mull-Soy will be shown at the Muller Booth. The many merits of this soy bean milk-substitute in the diets of those persons—infants, children and adults—who are allergic to cow's milk will be explained, as well as the other uses for this interesting product.

Parke, Davis & Company **Spaces No. 18-19-20-21**
Detroit, Michigan

Featured in the Parke, Davis Exhibit will be the sex hormones, Theelin and Theelol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparation, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride preparations.

The Pelton & Crane Company **Spaces No. 37-38**
Detroit, Michigan

Watch for the new Pelton "E & O" Surgical Light in this year's Pelton & Crane Exhibit. Pelton engineers have done away with old-fashioned rear-adjustments, provided cool, color-corrected beams that penetrate from two directions and defy obstruction, and finished their amazingly low-priced masterpiece in Duranite and chrome. Attracting attention also will be the Pelton FL (6″) Autoclave.

Pet Milk Sales Corp. **Spaces No. 29-30**
St. Louis, Missouri



An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

Petrolagar Laboratories, Inc. **Space No. 23**
Chicago, Illinois

This year Booth No. 23 will be occupied by Petrolagar Laboratories, Inc.. who offer, in addition to samples of the Five Types of Petrolagar, an interesting selection of descriptive literature and anatomical charts. Ask Mr. L. F. Harrison or Mr. R. L. Corkery to show you the new Habit Time booklet. It is a welcome aid for teaching bowel regularity to your patients.

Philip Morris & Company **Space No. 42**
New York, N. Y.

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Professional Management **Space No. 1**
Battle Creek, Michigan



Henry C. Black and Allison E. Skaggs of Professional Management will again be available for Free Consultation Service with members of the Michigan State Medical Society. Bring your professional and business problems to them for confidential discussion.

Ralston Purina Company, Inc. **Space No. 6**
St. Louis Missouri



The makers of Ry-Krisp have Low Calorie and Allergy Diets available to the profession in quantity. Of special interest is a new book on grains and their part in the American dietary. Samples of Ralston, the natural wheat cereal naturally fortified with wheat germ, and Ry-Krisp, the whole rye wafer, also available.

Frank N. Ruslander **Space No. 82**
Detroit, Michigan

Exhibit of Medical Photography, featuring the value of photography to the medical profession. Photographs for teaching, by means of slides, illustrations for case histories and published articles, et cetera, will be shown. The application of color photography to all branches of medicine and surgery will be demonstrated. Proper preparation of charts, typed material and drawings for lantern slides will also be displayed.

W. B. Saunders Company **Space No. 14**
Philadelphia, Pennsylvania

These publishers will have an exhibit unusually attractive to the medical profession because of the great number of brand new books and new editions which they will show. Included among these are: Buckstein's "X-Ray of the Alimentary Tract," Wilder's "Diabetes Mellitus," Walters & Snell's "Diseases of the Gallbladder," "Interpretation of Electrocardiograms" by Paul White and Ashton Graybiel, new edition of Levine's "Clinical Heart Disease," and many others.

Schering Corporation **Space No. 49**
Bloomfield, New Jersey

Representatives will be pleased to discuss latest developments in hormone therapy. New products on display will be Cortate (desoxycorticosterone acetate), Anteron (gonadotropic hormone from mares' serum), Pranturon (gonadotropic hormone from pregnancy urine), Pranone (orally effective progestin) as well as the other well-known Schering preparations—Progynon-B, Progynon-DH, Proluton, Oreton, and Neo-Iopax.

Scientific Sugars Co. **Space No. 47**
Columbus, Indiana

Representatives of the Scientific Sugars Company will welcome the Michigan doctors at its booth, where Cartose, Hidex, and Kinney's Yeast Extract, liquid and tablets, will be on display. Also, new preparations of interest to the physicians will be shown.

Sharp & Dohme **Space No. 39**
Philadelphia, Pennsylvania

Sharp & Dohme will have their new modern display at Detroit this year, featuring Propadrine Hydrochloride Products, "Lyovac" Bee Venom Solution, and other "Lyovac" Biologicals. There will also be on display a group of new pharmaceutical specialties and biologicals prepared by this house, such as Rabellon, Daldrin, Padrophyll, Elixir Propadrine Hydrochloride, Riona, Depropanex, and Ribothiron. Capable, well-informed representatives will be on hand to welcome physicians and furnish information on Sharp and Dohme products.

S.M.A. Corporation **Space No. 22**
Chicago, Illinois

Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S.M.A. Corporation. Physicians who visit this exhibit may obtain complete information, as well as samples, of S.M.A. Powder and the special milk preparations—Protein S.M.A. (acidulated), Alerdex and Hypo-Allergic Milk.

Smith, Kline & French Laboratories **Space No. 10**
Philadelphia, Pennsylvania

No Registration Required. Up-to-date information about "Benzedrine Inhaler," "Benzedrine Sulfate," "Benzedrine Solution," Pentnucleotide, Feosol Tablets and Elixir, Oxo-ate "B," Eskay's Neuro Phosphates and "Paredrine Hydrobromide with Boric Acid Ophthalmic" may be obtained in convenient envelopes from literature dispensers. If additional data are desired, the representative will be glad to answer any questions.

E. R. Squibb & Sons **Space No. 8**
New York, New York

Physicians attending the Michigan State Medical Society meeting are cordially invited to visit the Squibb Exhibit. The complete line of Squibb Vitamin, Glandular, Arsenical and Biological Products and Specialties, as well as a number of interesting new items, will be featured. Well-informed Squibb Representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

Frederick Stearns & Company **Spaces No. 45-46**
Detroit, Michigan

Doctors are cordially invited to visit our attractive convention booth to view and discuss outstanding contributions to medical science developed in the Scientific Laboratories of Frederick Stearns & Company. Our professional representatives will be pleased to supply all possible information on the use of such outstanding products as Neo-Synephrin Hydrochloride for intranasal use, Mucilose (flakes and granules) for bulk and lubrication, Insulin-Stearns, Gastric Mucin, Trimax and Sulfanilamide tablets. A complete line of Vitamin products will also be displayed.

Charles C Thomas, Publisher **Space No. 78**
Springfield, Illinois

New books to be displayed by Charles C Thomas include: McLellan's "Neurogenic Bladder"; Barnes' "Electrocardiographic Patterns"; Pancoast, Pendergrass, and Schaeffer's "The Head and Neck in Roentgen Diagnosis"; Roesler's "Atlas of Cardioroentgenology"; Sulzberger's "Dermatologic Allergy"; Joachim's "Practical Bedside Diagnosis and Treatment"; Steindler's "Orthopedic Operations"; Rankin and Graham's "Cancer of the Colon and Rectum"; McNeill's "Roentgen Technique"; Harkin's "Treatment of Burns"; Hamblen's "Endocrine Gynecology."

U. S. Standard Products Company **Space No. 34**
Woodworth, Wisconsin

The U. S. Standard Products Company will have a display at the Michigan State Medical meeting in September. Their Michigan representative will be present to greet you and a few minutes spent at this booth will be enjoyable to you and greatly appreciated by the company.

Vernor's Ginger Ale **Space No. 4**
Detroit, Michigan

The James Vernor Co. will continue to bring to the attention of the physicians of Michigan the unique high quality of its product as well as its important contribution in the field of medicine. Members will be invited to enjoy Vernor's and receive literature. The display should also be attractive.

Wall Chemicals Corporation **Space No. 79**
Detroit, Michigan

Wall Chemicals Corporation, a division of the Liquid Carbonic Corporation, will have on display a quantity of compressed gas anesthetics and resuscitants. There will also be a complete line of oxygen therapy equipment including the "Walco" oxygen humidifier, for the nasal administration of oxygen, and the "Walco" oxygen face mask.

Westinghouse X-Ray Company, Inc. **Space No. 62**
Detroit, Michigan

Westinghouse X-Ray Company will exhibit for the first time in the middle west the new Simplex Unit. This Unit is the latest development in high-powered shockproof diagnostic equipment for both vertical and horizontal fluoroscopic and radiographic work. It is economical in its space requirements and economical in use.

John Wyeth & Brother, Inc. **Space No. 5**
Philadelphia, Pennsylvania

You are cordially invited to visit the John Wyeth and Brother exhibit, where the following pharmaceutical specialties will be exhibited: Amphojel (Wyeth's Alumina Gel) for the treatment of hyperacidity and peptic ulcers; Alulotion Ammoniated Mercury with Kaolin for the treatment of impetigo; Bepron, Wyeth's Beef Liver with Iron for the nutritional anemias; Bewon Elixir, the palatable appetite stimulate and vehicle; Kaomagma Wyeth's Magma of Alumina and Kaolin for the management of diarrhea and colloitis; Mucara for the treatment of intestinal stasis.

Zimmer Manufacturing Company **Space No. 48**
Warsaw, Indiana

Zimmer Manufacturing Company will exhibit a complete line of Fracture Equipment. Mr. Fisher will be in charge of the booth, and will gladly demonstrate any of the items on display. The Luck Bone Saw, Adjustable Reamers and Hip Cups will be among the new instruments on exhibition.



ANNOUNCEMENT

The Neuro-Psychiatric Institute of the Hartford Retreat announces the following appointments to its professional and assisting staffs:

PROFESSIONAL STAFF

Psychiatrist-in-Chief
C. Charles Burlingame, M.D., F.A.C.P.
Associate Psychiatrist
Leslie R. Angus, M.D.
Associate Psychiatrist
Orin R. Yost, M.D.
Associate Psychiatrist
H. Ryle Lewis, M.D.
Senior Psychiatrist
Edward L. Brennan, M.D.
Senior Psychiatrist
William G. Young, M.D.
Senior Psychiatrist
Ralph T. Collins, M.D.
Psychiatrist Gordon H. Hutton, M.D.
Psychiatrist Paul L. Phillips, M.D.
Psychiatrist Ralph M. Stolzheise, M.D.
Psychiatrist Robert L. Wagner, M.D.
Psychiatrist John W. Bick, M.D.
Fellow in Psychiatry
Maurice D. Spottswood, M.D.
Fellow in Psychiatry
Raymond L. Osborne, M.D.
Fellow in Psychiatry
John M. Cotton, M.D.
Fellow in Psychiatry
Max Hayman, M.D.
Fellow in Psychiatry
Holmes E. Perrine, M.D.
Fellow in Psychiatry
Harry L. MacKinnon, M.D.
Fellow in Psychiatry
Robert J. Streitwieser, M.D.
Psychologist
Blake D. Prescott, B.A., M.A., M.D.
Assistant Psychologist
Marie C. Morgan, B.A.
Research Associate in Endocrinology
Majorie B. Patterson, B.S.
Research Associate in Psychology
Walter C. Shipley, A.B., M.A., Ph.D.
Research Associate in Biochemistry
Albert Kondritzer, A.B., M.S., Ph.D.
Oculist Harry St. C. Reynolds, M.D.
Internist John G. Martin, M.D.
Gynecologist
Louis F. Middlebrook, M.D.
Dentist George B. Odlum, D.M.D.
Physician, Employees' Health Service
William A. Wilson, M.D.

THE ASSISTING STAFF

Assistant to the Psychiatrist-in-Chief
Stella H. Netherwood, R.N.
2nd Assistant to the Psychiatrist-in-Chief
Mildred E. LaBombard
Secretary to the Psychiatrist-in-Chief
Adelaide Ray
Secretary to the Psychiatrist-in-Chief
Ena Greenstreet
Secretary to the Psychiatrist-in-Chief
Pauline Kline
Introductor Mary V. Cronin, R.N.
Assistant Introductor
Evelyn B. Dunlap, R.N.
Assistant Introductor
Josephine LiVecchi, B.A.
Consulting Director of Nursing
Annie W. Goodrich, M.A., ScD., R.N.
Director of Nursing
Elsie C. Ogilvie, R.N.
Associate Director of Nursing
Mary E. Curtis, B.N., R.N.
Director of Nursing Education
Ruth L. Dingman, B.N., R.N.
Director of Nursing Education
Jean MacLean, B.S., B.N., R.N.
Nursing Supervisor
Mary Giannettino, R.N.
Nursing Supervisor
Alice Giannettino, R.N.
Nursing Supervisor
Margaret L. Fehr, R.N.
Nursing Supervisor
Erma D. Johnson, R.N.
Nursing Supervisor
Constance Smithwick, R.N.
Nursing Supervisor
Harold R. Towne, R.N.
Nursing Supervisor
Louise M. Perry, R.N.
Nursing Supervisor
Lois Cramb, R.N.
Laboratory Technician
Alice Ackerman, A.B., M.T.
Laboratory Technician
Claire A. Reavey, A.B.
Research Technician
Helen M. Dobbin, A.B.
Pharmacist Frank V. Zito, Ph.G.
Research Librarian and Translator
Mary B. Jackson, A.B., M.A.
Special Dietitian Eleanore L. Breen
Certificate, Leslie School
Oral Hygienist Patricia A. McCabe
Chief of Medical Records Room
Toba Blassberg, B.S.
Correspondence Secretary
Ella C. Saunders
Comptroller Albert W. Stevens
Chief, Dietary Department
Helen R. Schait,
Certificate, Pratt Institute
Chief, Purchasing and Contract Department William M. Jennings
Personnel Instructor Mary Ulisse
Personnel Clerk Gertrude E. Engman
Supervisor of Food Service
Helen G. Jacobs

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Blake D. Prescott, B.A., M.A., M.D.
Executive Officer, The Faculty of Instructors for Guests
Charles R. Clarke, Jr., B.P.E.
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Art Editor, Publication for Guests
Carolyn C. Bronson,
Art Students League of New York
Social Director Dorothy F. Carruth
Instructor, University Extension Courses
Angela T. Folsom, B.A., M.A.
Instructor, University Extension Courses
Margaret L. Adams, A.B., A.M.
Instructor, University Extension Courses Margaret F. Head, B.A.
Librarian, Guest Library
Mary E. Crehan, B.A., Ed.M.
Instructor, Horticulture
Robert F. Stevens, B.S., M.S.
Instructor, Current Events
Irwin A. Buell, B.A., M.A., Ph.D.
Instructor, Current Events
John W. Colton
Instructor, Current Events
Ward E. Duffy, B.A., B.Lit.
Instructor, Physical Education
Arthur E. Chatfield, B.S.
Instructor, Physical Education
Walter T. Herrett, B.S.
Instructor, Physical Education
Emelie E. James, B.S.
Instructor, Physical Education
Barbara Gately, B.A.
Instructor, Swimming Anne Hartridge
Instructor, Bridge
Theodosia Van Norden Emery,
Master of Bridge and Director
Culbertson National Studios
Instructor, Dancing Doris Gibbons,
Russian School of Ballet Dancing
Instructor, Painting and Modelling
Bertha White
Instructor, Sculpturing
Fraincis L. Wadsworth,
Student of a Rodin Pupil
Instructor, Painting and Drawing
Dorothy G. Spaulding,
Child-Walker School of Art
Instructor, Appreciation of Art
A. Everett Austin, Jr., B.S.
Instructor and Modiste
Doris Runshaw
Instructor, Shorthand and Commercial Courses Martha L. Blake,
Certificate, Bay Path Institute
Instructor, Arts and Crafts
Elsie M. Krause, B.A. in Art Education
Pratt Institute
Instructor, Arts and Crafts
Jean P. Harris,
Diploma, Pratt Institute
Instructor, Manual Arts
Claude D. Lacourture, B.S.
Instructor, Manual Arts
Alexander Kaszalka
Instructor, Dietetics
Helen L. Ronan,
Diploma, Pratt Institute
Instructor, Music, Organ and Piano
Venila B. Colson, A.B., A.M.
Instructor, Cello
Katherine H. Howard, Diploma,
Royal School of Music, Berlin
Instructor, Music, Vocal
Josephine S. Koch,
Yale School of Music
Instructor, Appreciation of Music
Reginald G. DeVaux, B.A., M.A.,
from Royal Conservatory of St. Cecelia, Rome, and A.G.N., N.A.O.
from Pontifical School of Sacred Music, Rome
Instructor, Violin
Lorraine Martineau, B.M.,
Eastman School of Music
of University of Rochester
Instructor, Braille
Ethel M. Law, B.Ed.
Instructor, Lip Reading
Eveline Dunbar, Certificate,
Clark School Training
Class for Teachers
Instructor, Beauty Culture
Ruth H. Ulrich, Certificate,
Schulz Training School
Instructor, Beauty Culture
Dorothy L. Allen, Certificate,
Schulz Training School
Personal Shopper
Elizabeth Stephenson, B.A.
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Charles C. Canivan, R.N., P.T.
Physiotherapist
Ruth E. Manion, R.N., P.T.
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THE BUSINESS SIDE OF MEDICINE

A STUDY OF INCOMES AND EXPENSES FOR 1939

By HENRY C. BLACK and ALLISON E. SKAGGS

After the publication in 1937† of average income and expense figures which we had compiled through the courtesy of fifty of our clients throughout the State of Michigan, a great number of doctors, including many young men just starting in practice, made these figures a basis for comparison with their own experiences. The enthusiastic reception of these figures and the many requests for additional information from doctors who were not clients of ours has made us keenly interested in accumulating still further information for the benefit of the Profession, and we are now presenting a brief summary of the results of our compilation made from available 1939 figures of a still larger and more varied group of doctors.

We do not suggest that the accompanying figures are those of the average doctor. They are, however, the average of the seventy-nine doctors whose figures were available to us, and were used by us for this purpose because we felt that they represented an excellent cross-section of medical practice in Michigan communities ranging from the rural sections to the large cities. These averages represent figures from individuals and two-man partnerships, but none from the larger group practices.

Why not get out your own figures for the year 1939, and see how they compare either in dollars and cents or in percentages with averages shown in this study?

In such a study of income and expense figures, it will be apparent that these net incomes are higher than is usually conceded to be the average net income for doctors. Our clients represent a higher income group than could be considered average, and our very employment by them is evidence of their desire to handle their business most effectively. It also must be apparent that the average collection experience of these doctors is high, amounting to over 88 per cent for all groups, including rural practices. We believe these high collection percentages confirm the soundness of our recommendations made in previous articles in this JOURNAL regarding the necessity of good office records, prompt and regular sending of statements on all accounts, and the correct psychological approach through correspondence to delinquent accounts, as adherence to these fundamental principles makes for a higher financial return.

	Average Yearly Total	*Average Per Income Dollar*
Business Done	$12,406.91	..
Cash Received	10,954.10	$1.00
Expenses:		
Rent	$ 630.87	.06
Drugs and Supplies	1,166.51	.11
Salaries	1,115.75	.10
Fees	377.80	.03
Automobile Expense*	589.59	.05
Miscellaneous Expense**	935.95	.09
Total Expense	$ 4,816.47	$ .44
Net Profit	$ 6,137.63	.56
Living Expenses	$ 4,232.63	.38
Life Insurance Premiums	879.45	.08
Net Gain	$ 1,025.55	.10

*Including Depreciation.
**All other expenses including Depreciation on equipment, furniture, and instruments.

It should also be interesting to know that the average net worth of the seventy-nine doctors in this study was slightly over $10,000.00 each, or about one year's cash income. The average original cost of office furniture, instruments, and equipment now in use was approximately $2,500.00, and the cash on hand, including bank deposits, amounted to slightly over $1,000.00.

In the accompanying table showing expense in terms of percentages, we have classified these doctors into four general groups:

A. Those practicing in small towns.

B. General practices in cities of 25,000 or larger.

†JOURNAL of the Michigan State Medical Society, August, 1937.

TABLE OF EXPENSES IN RELATION TO INCOME

	Group A	Group B	Group C	Group D
Cash Income	$1.00	$1.00	$1.00	$1.00
Expenses:				
Rent	.05	.06	.08	.06
Drugs and Supplies	.15	.10	.07	.08
Salaries	.09	.09	.09	.13
Fees	.05	.03	.01	.04
Automobile Expense*	.06	.06	.06	.04
Miscellaneous Expense**	.07	.10	.09	.08
Total Expense	.47	.44	.40	.43
Net Income	$ .53	$ .56	$ .60	$ .57
Living Expenses	.35	.43	.37	***
Life Insurance Premiums	.09	.08	.09	***
Net Gain	$ .09	$ .05	$ .14	***

*Including Depreciation.

**All other expenses including Depreciation on equipment, furniture, and instruments.

***Not available.

C. Specialty practices (all of which are in larger cities).

D. Partnerships of two doctors.

In the first expense classification, although rent in individual cases varies considerably, it will be noted that the *average* office rent varies but little in the four groups, ranging from 5 per cent in those practices in small towns to 8 per cent for the specialty practices. Drugs and supplies run higher in rural communities due to the fact that more dispensing is done in that type of practice than in the large city practices, and particularly higher than is true in the specialty practices.

Average salaries amount to the same for the small town general practice and specialty practice, but increase substantially in partnerships due to the fact that there is usually another office girl or nurse employed over and above the average number employed by doctors practicing alone. We might mention, however, that although this addition to the pay roll increases the salary ratio, it invariably adds materially to the volume of business the doctors are able to do.

Fees vary from 1 per cent in specialty practices to 5 per cent in small towns. Automobile expense remains the same in the first three groups, but is lower in partnerships probably due to the fact that most partners draw a fixed car allowance which may not quite cover their entire car expense.

Miscellaneous expenses, which include all other expenses directly chargeable to the business as well as depreciation on the physical assets of the office, fluctuate from 8 to 10 per cent, and for a general classification such as this, this variation is small indeed.

Living expenses average from 60 to 75 per cent of the net incomes (30 to 40 per cent of cash receipts), and life insurance premiums average from 15 to 20 per cent of the net incomes (7 to 10 per cent of cash receipts).

In spite of the fact that the practice of medicine must never be regimented; in spite of the fact that its ethics must continue to remain higher than any other profession; in spite of the fact that studies of costs and volume must necessarily be foreign, and possibly even uninteresting to some doctors, such tables of comparison as this can be made very valuable in determining whether your office is producing the maximum return.

Such a table should tell you whether you have retained a sound perspective in your composite judgment of the proper expenditures for salaries, rent, other expenses, and investment in equipment, provided you will really take time to schedule out your own expenses in the same form as those listed here, and see where they are higher or where they are lower.

Try to find where any variances are reflected in your net income and financial progress. If enough doctors do this we will feel very well compensated for the time and effort that we have spent in compiling these figures to present to the Profession in Michigan some sort of "yardstick" by which they may measure their own achievements.

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MICHIGAN MEDICAL SERVICE

Steady consistent growth during the first months of operation is recorded by Michigan Medical Service. It is increasingly important that every doctor knows the provisions of this plan sponsored by the medical profession to make possible a sound pre-payment arrangement for medical services. Attention is invited to the results of the operation of a professionally administered medical service plan.

Enrollment

As of July 31, 66,982 persons were enrolled, including employees and in most instances their dependents, of the following leading Michigan firms:

Acme White Lead & Color Works; Almont Manufacturing Co.; *Ann Arbor News; Bay City Times;* Booth Newspapers; Cavin Lumber Yards; Champion Spark Plug; Chases' Department Store; City of Royal Oak; Cogsdill Manufacturing Co.; College Drug Store; Dean & Harris; Edison Institute; Federal Mogul Corp.; Ford Motor Company; Freeman Manufacturing Co.; J. J. Gielow & Sons; *Grand Rapids Press;* Henry Ford Trade School; Holden & Reaume; Hurd & Lock Manufacturing Co.; *Jackson Citizen Patriot; Kalamazoo Gazette;* Lewis F. Brown, Inc.; Lonergan Manufacturing Co.; Manufacturers' Life Insurance Co.; Michigan State Board of Tax Administration; Michigan State Highway Department; Michigan State Unemployment Compensation Commission; *Muskegon Chronicle;* J. C. Penny Co.; People's Outfitting Co.; *Saginaw Daily News;* Stewart Hartshorn Co.; Department of Public Instruction; Symons Bros. Co., Jackson and Saginaw; Truckaway Corporation; United Detroit Theatres; Versnick Bros. Co.; Washington Boulevard Building.

A steady increase in enrollment of an average of 1,700 new subscribers each month has been obtained during the summer months. The recognition of Michigan Medical Service and the presentation during the fall months when employees are back from vacations will make possible even greater monthly enrollment.

State-Wide Organization

Michigan Medical Service is enrolling subscribers throughout the entire state. Doctors in practically every locality may have patients who are subscribers. Particular attention is being given to enrollment in *rural areas.* Arrangements are being completed for the enrollment of rural mail carriers through the Michigan Rural Mail Carriers Association. Steps are being taken to enroll other rural groups through common interest organizations such as the Michigan State Grange and other associations.

Nine district offices have been established in coöperation with Michigan Hospital Service (formerly the Michigan Society for Group Hospitalization). Sixteen representatives are presenting the Medical Service Plan (or the Surgical Benefit Plan) and the Hospital Service Plan to groups of eligible subscribers anywhere in the state.

Individual doctors are urged to refer all inquiries concerning the possible enrollment of groups of subscribers in their community to

MICHIGAN MEDICAL SERVICE
REGISTRATION HONOR ROLL

(As of August 10, 1940)

100 per cent
Barry
Mason

90 to 99 per cent
Manistee

80 to 89 per cent
Allegan
Bay-Arenac-Iosco-Gladwin
Chippewa-Mackinac
Calhoun
Clinton
Delta-Schoolcraft
Dickinson-Iron
Gratiot-Isabella-Clare
Hillsdale
Ingham
Kent
Lenawee
Mecosta-Osceola
Menominee
Midland
Monroe
Newaygo
Oceana
Ontonagon
Saginaw
St. Joseph
Tuscola

75 to 79 per cent
Eaton
Lapeer
Muskegon
Northern Michigan
O. M. C. O. R. O.
Ottawa

the local representative or directly to Michigan Medical Service, 2002 Washington Blvd. Bldg., Detroit.

Services to Patients

Real assistance to subscribers obtaining medical services has been made possible. Services have been received by 3,000 patients under both the Medical Service Plan and the Surgical Benefit Plan.

Doctors of medicine are rendering services to patients who are subscribers of Michigan Medical Service at the rate of twenty patients each day.

Payments to Doctors

Services provided subscribers during the first six months by participating doctors of medicine was in excess of $100,000.00.

At least one out of every nine doctors of medicine in Michigan has been paid, through Michigan Medical Service, for services to subscribers. Doctors in fifty-seven out of the eighty-three counties in the state have received payments for services.

In each month the full Schedule of Benefits, equivalent to prevailing charges now made by doctors of medicine in Michigan for patients in the income group enrolled in Michigan Medical Service, has been paid for all services.

The Michigan State Medical Society has not contributed to M.M.S. since it enrolled its first group (March 1, 1940).

Procedure for Payments

There is only a minimum of paper work for physicians to receive payments through Michigan Medical Service for services to subscribers.

When a subscriber requests services, the doctor sends a short Initial Service Report to verify that the subscriber is in good standing and eligible for services. The correct spelling of the patient's name and the certificate number from the subscriber's Identification Card or Certificate will facilitate the handling of reports. The doctor will be notified by return mail or by telephone **if the subscriber is not eligible for benefits.**

The Monthly Service Report, to be sent at the completion of services *but not later than the end of each month,* is an itemized statement of services rendered. To avoid delay in the approval of your bill, fill in all information requested. The Medical Advisory Board will be assisted greatly if the doctor sending in the report will indicate the amount of special service such as the extent of lacerations sutured, the location and size of tumors or cysts removed, the particular type of operation performed (Strumdorf, Baldy-Webster, Caldwell-Luc) and the kind of x-ray (chest, stereoscopic).

For additional report blanks, write M.M.S. or call upon your County Society Secretary who has a supply.

More than 3,200 doctors of medicine, or three-fourths of the total possible number, are registered with Michigan Medical Service.

You Are Cordially Invited

When you attend the Annual Meeting of the Michigan State Medical Society in Detroit, September 25-28, you are invited to visit the offices of Michigan Medical Service on the 20th floor of the Washington Boulevard Building—one short half block from the Convention Headquarters in the Book-Cadillac Hotel.

At the Convention, stop in Booth No. 68, a joint exhibit of the Medical and Hospital service plans. Full information about all aspects of both Michigan Medical Service and Michigan Hospital Service can be obtained. Detailed experience reports will be available and attendants will be able to furnish you with the data you may desire.

YOUR PREPAREDNESS QUESTIONNAIRE

Have you executed and mailed your Preparedness Questionnaire to the American Medical Association, 535 North Dearborn Street, Chicago? Michigan's returns run only 47 per cent —well under the average for the whole country. Send in your questionnaire at once, and help boost this state's percentage of returns to 100 per cent.

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YOU AND YOUR BUSINESS

THE DIAMOND JUBILEE of the Michigan State Medical Society is at hand! Plan to be in Detroit, September 25, 26, 27. Notify your patients that you are taking advantage of this unusual postgraduate opportunity. Advise the editor of your newspaper that you will be in Detroit for the 75th Annual Meeting of the State Society.

REMEMBER THE DATES
SEPTEMBER 25, 26, 27, 1940
BOOK-CADILLAC HOTEL, DETROIT

BRING YOUR MEMBERSHIP CARD. To facilitate your registration, the registrars would appreciate your presenting your M.S.M.S. Membership Card when you visit Detroit for the Diamond Jubilee. A registration of approximately 2,000 physician-members is anticipated, so presentation of your Membership Card will add to your convenience. Register on the 5th floor, Book-Cadillac Hotel.

In the General Assemblies, the Section Meetings, and the Technical Exhibits, every phase of Medicine and Surgery will be covered—the last word in modern, practical, scientific medicine and surgery.

Regardless of what any physician may be interested in, regardless of how general or how limited his interest, there will be at Detroit a program to challenge that interest and make it worthwhile for him to attend.

INVITATIONAL GOLF. An invitational golf match, to which all members of the Michigan State Medical Society are cordially invited, will be held at 1:00 p. m. on Monday, September 23, 1940, at Detroit Golf Club. Greens fees and dinner, $4.00.

THE TECHNICAL EXHIBITION. An educational exhibit of unusual interest and scope has been arranged on the Fourth Floor of the Book-Cadillac Hotel for the M.S.M.S. Diamond Jubilee. The exhibition will be open every day from 8:30 a. m. to 6:00 p. m. (close at 3:00 p. m. on Friday).

FIRST ANNUAL MEETING, Michigan Medical Service. The members of Michigan Medical Service will meet on Monday, September 23, 1940, at 8:00 p. m. in the English Room, Book-Cadillac Hotel, Detroit. Members of Michigan Medical Service are all the members of the Michigan State Medical Society's House of Delegates plus the Directors of Michigan Medical Service. The officers' reports and election of directors will be on the agenda of the first annual meeting.

NEGLECTED AND FORGOTTEN

The best information obtainable backs up a statement in the last issue of THE JOURNAL OF THE MICHIGAN STATE MEDICAL ASSOCIATION that 937 crippled children who should have received hospital treatment last year were deprived of it because of the severe cut the Legislature made in the fund for the care of such unfortunates.

That is not a pretty fact; and the one excuse for the Legislature is lack of intent. The members of that body in trying to end one abuse unwittingly created another. In an effort to stop a reckless expenditure of funds which in some places was approaching the proportions of a racket, they placed the child relief effort in a straightjacket.

The circumstances are well known, and need not be elaborated. It also is true that the Legislature can do nothing to correct its mistake until it convenes again.

But there is one body that could have done something and didn't. This is the so-called Little Legislature, which has an emergency fund at its command, and also some power over the distribution of unexpected State assets.

The Little Legislature, faced with an opportunity to assign millions where need was greatest, developed great liberality in directions where it was relatively mild, or did not actually exist at all. It even delivered handouts to fairs and conventions. But, so far as we know, the crippled children were overlooked.

It is true that in the beginning the seriousness of their plight was not well understood. But in recent months there has been no doubt about the real suffering the over-curtailment of the

(Continued on page 704)

On hand to welcome you again . . .

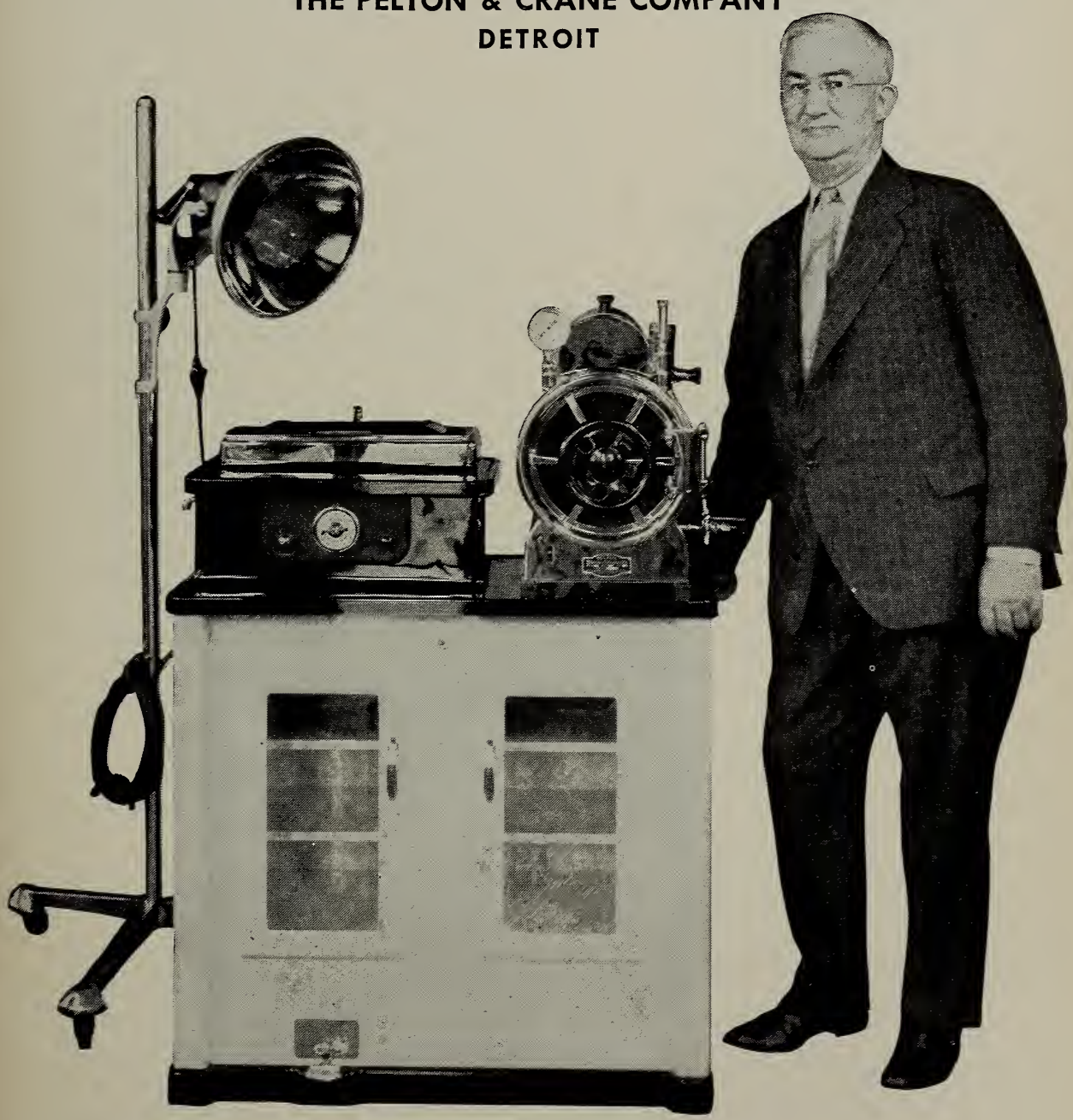
It will be a pleasure and privilege to see you at the Diamond Jubilee Convention of the M. S. M. S. In spaces 37 and 38 you will find a complete display of the best in Sterilizers, Lights, Cuspidors and other Surgical Equipment.

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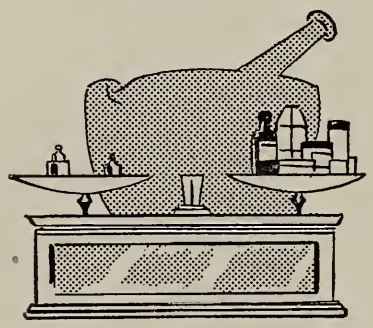
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State appropriation has caused. How much the Little Legislature might now do, we cannot say; but the members should bestir themselves and help as far as they can.

—*Detroit Free Press,* Editorial, July 25, 1940.

YOU ARE RESPONSIBLE

Under the Harrison Narcotic Act, when a nurse handles narcotics for a physician, she acts as his agent. Inherently she has no right either to possess or administer narcotics; unless, of course, they lawfully belong to her or someone else for whom she may lawfully act as an agent. —From *Medical Jurisprudence,* by Carl Scheffel, Ph.B., M.D., LL.B., P. Blakiston's Son & Co., 1931.

INTRAMURAL COURSES

■ Norman R. Kretzschmar, M.D., of the University of Michigan, has furnished these remarks relative to postgraduate medical education:

Extramural courses have been a great success, but short concentrated courses designed to meet the needs of particular individuals and sufficiently flexible to provide a variety of material with the simultaneous presentation of clinical material would be a distinct advance in postgraduate medical education.

Such a program for teaching obstetrics was established in 1938. Arrangements were made for four physicians at a time to spend two weeks at the University Hospital in Ann Arbor. The physicians eat at very reasonable rates at the hospital cafeteria, and pay $3.00 a week for room at the hospital.

Since their accommodations are in the Maternity Unit, the men have intimate contact with the routine of the department and they take part in the management of the obstetric patients. Instructors are provided to review as completely as necessary the fundamentals of obstetrics and to discuss clinical problems as they arrive. Newer principles in the handling of various problems complicating obstetrics, such as toxemia, hemorrhage, heart disease, diabetes, et cetera, receive particular attention.

The program in addition includes a consideration of problems in pediatrics, surgery and other specialties. The men also attend the various conferences in the department for the discussion of endocrinology and obstetric and gynecologic pathology.

Since its inception the plan has provided this training for approximately one hundred men from all parts of the state. It has been received with great enthusiasm by all who have attended.

These two-week periods of postgraduate training continue to be open to physicians of the state. Arrangements should be made through the Bureau of Maternal and Child Health of the Michigan Department of Health. Physicians wishing to attend are asked to suggest the time most suitable for them so that their practice will be disturbed as little as possible.

It is hoped that the response of physicians and continued coöperation of the State Health Department and the University will extend and widen the scope of this program. Every physician in the state should have the opportunity to take this training.

POSTGRADUATE EDUCATION

In the August number of THE JOURNAL is found a notice of centers and dates of the Autumn Postgraduate Series sponsored by The Michigan State Medical Society in coöperation with the University of Michigan Medical School, Wayne University College of Medicine and the Michigan Department of Health. The subject matter is as follows:

October, 1940

1. *The Newborn Period.* Diseases peculiar to this period. Hemorrhagic diseases. Use of Vitamin K. Icterus neonatorum. Tetany. Convulsions. Thymic enlargement.

2. *The Management of Labor.* The use and abuse of analgesias in obstetrics.

3. *Development of Hernia.* The care of hernia in infants and children. Medico-legal aspects. The complications: Inflammation, irreducibility, incarceration, strangulation. Adult cases manageable by truss. Injection treatment. Selection of operative procedures. The problem of the recurrent hernia.

4. *The Significance of Albuminuria.* Finding the cause of albuminuria. A simple classification of nephritis. A practical and highly accurate renal function test. The etiology and management of nephritis. Preventive aspects of glomerular nephritis. Nephrosis. Albuminuria of pregnancy.

5. *The Psychoneuroses;* their cause, classification and methods of treatment suitable for office practice.

6. *Laboratory Procedures for Office Practice.* A demonstration and interpretation of certain laboratory tests useful in daily office practice with minimum of time and equipment.

7. *Nasal Accessory Sinus Diseases in the Practice of Medicine.* The diagnosis and treatment of acute and chronic sinusitis.

8. *The Differential Diagnosis of Coma.* The more practical points in the clinical and laboratory diagnosis of this emergency. The available treatment of the various types.

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

LESS CONTAGION

A sharp drop in the prevalence of communicable diseases throughout the state is indicated in the reports received by the Michigan Department of Health during the first six months of 1940.

Cases of all major diseases declined from 38,914 during the first half of 1939 to 37,957 cases for the same period this year. Important reductions were noted for all communicable diseases except measles, poliomyelitis and gonorrhea.

Pneumonia cases declined 31 per cent from 2,696 cases last year to 1,853 in 1940. Whooping cough cases dropped from 5,170 to 4,032. Diphtheria cases totaled 114 compared to 273 last year. Tuberculosis, smallpox and syphilis cases also dropped below 1939 figures.

Measles cases increased from 8,946 cases in 1939 to 12,167 cases so far this year. It is expected that measles cases will continue to increase during the coming year as this disease approaches the peak of its usual three-year cycle.

POLIOMYELITIS

There were 26 cases of poliomyelitis reported in July this year, compared with 82 in 1939 when the state's second largest outbreak of the disease occurred. The five-year mean for the month is 27 cases.

The cases this year have been widely scattered throughout the state, with little concentration in any single area thus far. Wayne County, where a majority of the 1939 cases occurred, is reporting few cases this year. If the relatively low incidence of poliomyelitis occurring in July continues, health officials do not expect that the disease will approach the epidemic proportions of last year.

TORONTO SPLINTS AND BRADFORD FRAMES

Toronto splints and Bradford frames designed for use in poliomyelitis outbreaks are being made available by the National Foundation for Infantile Paralysis. These appliances will be provided on a loan basis in any community for use with indigent patients who may be in need of them. Requests for loan of these appliances will be made through the county chapters of the National Foundation. A leaflet describing the splints and frames, their method of use and the manner of ordering them may be obtained upon request to the local chapter or to the Foundation at 120 Broadway, New York City.

A.P.H.A. MEETING IN DETROIT

The American Public Health Association will come to Michigan this year to hold its 69th annual meeting October 8-11 in Detroit. The Michigan Public Health Association is acting as host to the national meeting. No Michigan Public Health Conference will be sponsored this year.

Affiliated organizations meeting in conjunction with the American Public Health Association will include the American School Health Association, National Organization of Public Health Nursing, International Society of Medical Health Officers, and a number of other groups.

Henry F. Vaughan, Dr.P.H., Detroit health commissioner, is acting as executive secretary of the Michigan Committee in charge of arrangements for the annual meeting. Headquarters for the meeting will be at hotels Book-Cadillac and Statler. All representatives of the health professions in Michigan have been cordially invited to attend the sessions of the A.P.H.A. This will be the first time this organization has convened in Michigan in sixteen years.

DARKFIELD EXAMINATIONS

The darkfield examination is rapidly becoming one of the methods most used by Michigan physicians for the diagnosis of early syphilis. The delayed darkfield by the use of the capillary tube has proved most satisfactory. To achieve the best results, the capillary tube should be filled at least half full of the specimen material. Both ends of the tube should be filled with wax to prevent leakage. The most satisfactory results will be obtained if three or four specimens are taken on succeeding days, each specimen being mailed to the laboratory the day it is taken. Laboratory kits for taking darkfield specimens may be obtained upon request to local full-time health departments or the laboratories of the Michigan Department of Health.

LABORATORY TESTS INCREASE

Michigan physicians are making greater use than ever before of the services offered by the laboratories of the Michigan Department of Health. Demands upon the laboratories in April set an all-time monthly high of 52,280 examinations. In June 47,377 examinations were made, an increase of 6 per cent over the same period last year. The two state laboratories in the Upper Peninsula at Houghton and Powers are each doing more examinations than one laboratory alone did two years ago. Both the Houghton and Powers laboratories are doing more than 4,000 examinations each month for Upper Peninsula physicians. The Department also maintains a Western Michigan Division Laboratory at Grand Rapids in addition to the central laboratory at Lansing.

TUBERCULOSIS MORTALITY

Tuberculosis mortality for 1939 continued to equal the record low rate established the previous year. Deaths from tuberculosis in Michigan totaled 1,881 in 1939 with a rate of 36.9 deaths per 100,000 population. In 1938, 1,866 deaths were reported for a rate of 36.6. Of the 1,881 deaths last year, 945 occurred in Detroit.

PERSONNEL CHANGES

Dr. Jacques Pierce Gray has been appointed director of the Hillsdale County Health Department with headquarters at Hillsdale. Dr. Gray comes to Michigan from California where he had been serving as director of public welfare of the city and county of San Francisco.

Dr. Richard Sears, director of the District Health Department No. 5 with headquarters at White Cloud, was appointed director of the Muskegon County Health Department, effective August 1.

Dr. J. A. Wessinger was officially appointed full time health officer for Ann Arbor, effective June 3, 1940. Dr. Wessinger had served for many years in a similar part time capacity.

Dr. R. E. Pleune, director of the Houghton-Keweenaw Health Department, has announced that the headquarters for his department has been changed from Houghton to Hancock.

On July 1, 1940, Benzie County joined with the Mason-Manistee Health Department to form the new Mason-Manistee-Benzie District Health Department. Dr. Frank J. Hill will continue as director of the enlarged department with headquarters at Manistee.

TOGETHER with all the people of Michigan, we offer our congratulations to the Michigan State Medical Society on the Seventy-fifth Anniversary of its founding.

To no other group is Michigan more deeply indebted for its greatness than to its medical profession, through whose untiring efforts the State has achieved a record of health that stands among the highest in the Nation.

It is a privilege to acknowledge our debt to the Michigan State Medical Society for three-quarters of a century of unselfish service—a debt to which its membership, in their modest devotion to duty, have never laid claim—and to extend to the Society our best wishes for a future equally as brilliant as its past.

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✶ COUNTY AND PERSONAL ACTIVITIES ✶

Frank H. Power, M.D., Ann Arbor, Field Representative in Cancer of the State Society, addressed the Women's Congress of the Calhoun County Fair at Marshall on August 22, 1940.

* * *

Notice: If a representative of the Nation's Credit Syndicate, 343 South Dearborn Street, Chicago, contacts a physician to aid in the collection of delinquent accounts, write the American Medical Association, 535 North Dearborn Street, Chicago, for report on this firm.

* * *

Special Membership: County Medical Societies wishing to nominate members for Emeritus, Honorary or Retired Membership in the Michigan State Medical Society, at the meeting of the House of Delegates in Detroit, on September 24, 1940, are requested to notify the Executive Office, 2020 Olds Tower, Lansing, so that the eligibility of the nominee may be verified in advance of the meeting.

"Michigan Hospital Service" is the new name of the Michigan Society for Group Hospitalization. The new name, approved by the Michigan Insurance Department, will be more easily remembered in its shortened form. Michigan Hospital Service is the only group hospitalization plan operating in Michigan which has the approval of the Michigan State Medical Society.

The American Academy of Ophthalmology and Otolaryngology will hold its 45th annual convention in Cleveland, October 6 to 11. The Academy is composed of more than 2,500 specialists in diseases of the eye, ear, nose and throat. More than 100 teaching lectures will be offered this year in the elaborate program designed to bring the members up to date in their chosen fields.

Frank Brawley, M.D., Chicago, is president; Frank R. Spencer, M.D., Boulder, Colo., president-elect; Arthur W. Proetz, M.D., St. Louis, Joseph F. Duane, M.D., Peoria, Ill., and Charles T. Porter, M.D., Boston, are vice presidents. Wm. P. Wherry, M.D., Omaha, is secretary

Immediately following the annual convention of the Academy of Ophthalmology and Otolaryngology, the Pan-American Congress of Ophthalmology will bring together a large group of eye specialists of the Western Hemisphere on October 11 and 12. This will be the First Pan-American Congress, and it will be sponsored by the American Academy of Ophthalmology and Otolaryngology.

* * *

Midland County.—The Midland County physicians' wives have recently organized a County Woman's Auxiliary with a membership of fourteen. We will be ready to start activities in September and hope to be of real service to our local medical organization. The following officers were elected: President, Mrs. Kalmon S. Von Haitinger; vice president, Mrs. Melvin H. Pike; secretary-treasurer, Mrs. H. H. Gay, all of Midland.

At the Annual Meeting of the Michigan Association of Industrial Physicians and Surgeons in Detroit, Tuesday, September 24, 1940, the following program will be presented:

9:00 a.m.

Harper Amphitheater, Harper Hospital

Operative Clinic—Traumatic and Reconstructive Surgery by members of Department of Industrial Surgery.

12:00 m.

Luncheon—Hospital Cafeteria

2:00 p.m.

Round Table Discussion on Industrial Medical and Surgical Problems. Discussion to be participated in by all present and led by the following:

Carey P. McCord, M.D.
John E. Caldwell, M.D.
Francis Macmillan, M.D.
Clarence D. Selby, M.D.
Grover C. Penberthy, M.D.
Robert H. Denham, M.D.
Earl I. Carr, M.D.
John J. Prendergast, M.D.
L. E. Severy, M.D.
A. H. Whittaker, M.D.

6:30 p.m.

Dinner at the Book-Cadillac Hotel

Frank T. McCormick, M.D., Detroit, President of the Michigan Association of Industrial Physicians and Surgeons, presiding

Address: "The Part the Medical Profession Can Play in Industrial and National Defense"
by HARVEY CAMPBELL, Vice President of the Detroit Board of Commerce.

* * *

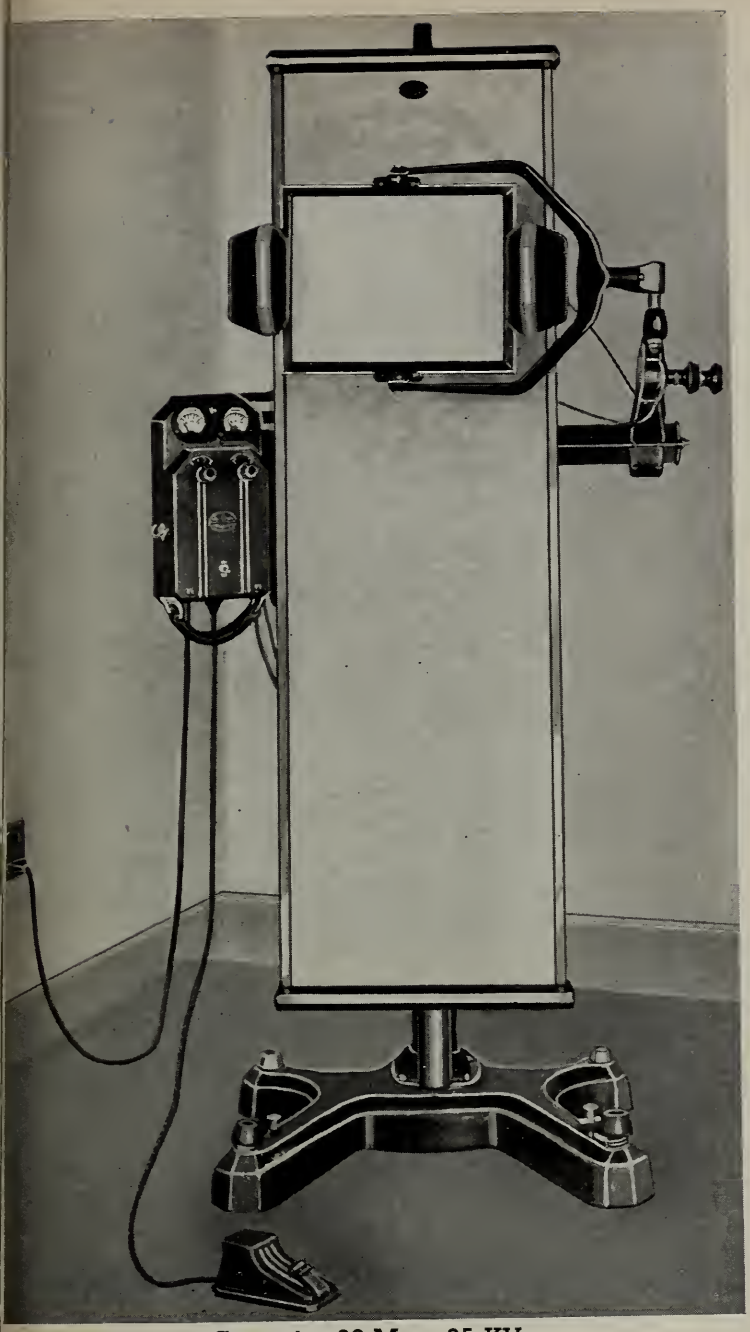
M-Day Plan—Burton R. Corbus, M.D., of Grand Rapids has been appointed as Michigan State Chairman to the A.M.A. Committee on Medical Preparedness. The balance of the Michigan committee includes:

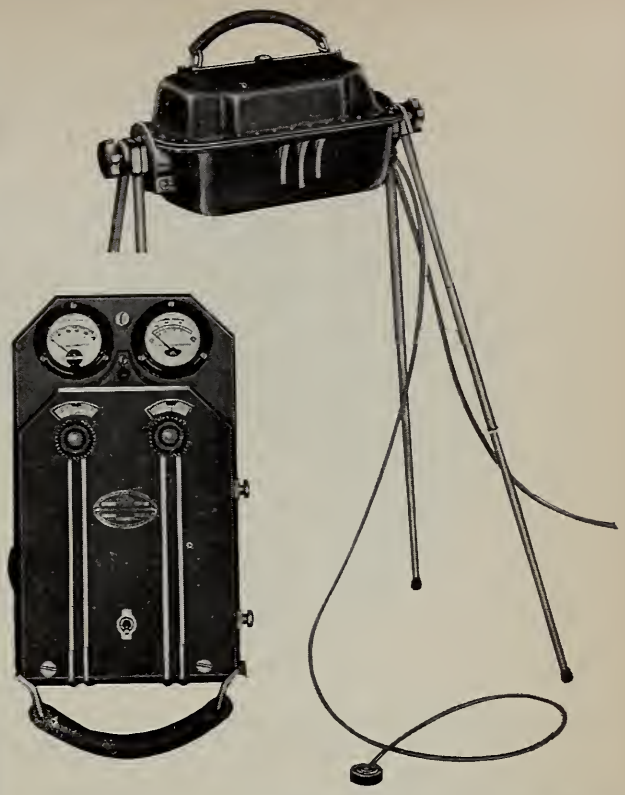
Frederick G. Buesser, M.D., Detroit; L. Fernald Foster, M.D., Bay City; Herman H. Riecker, M.D., Ann Arbor; Ansel B. Smith, M.D., Grand Rapids; Paul R. Urmston, M.D., Bay City.

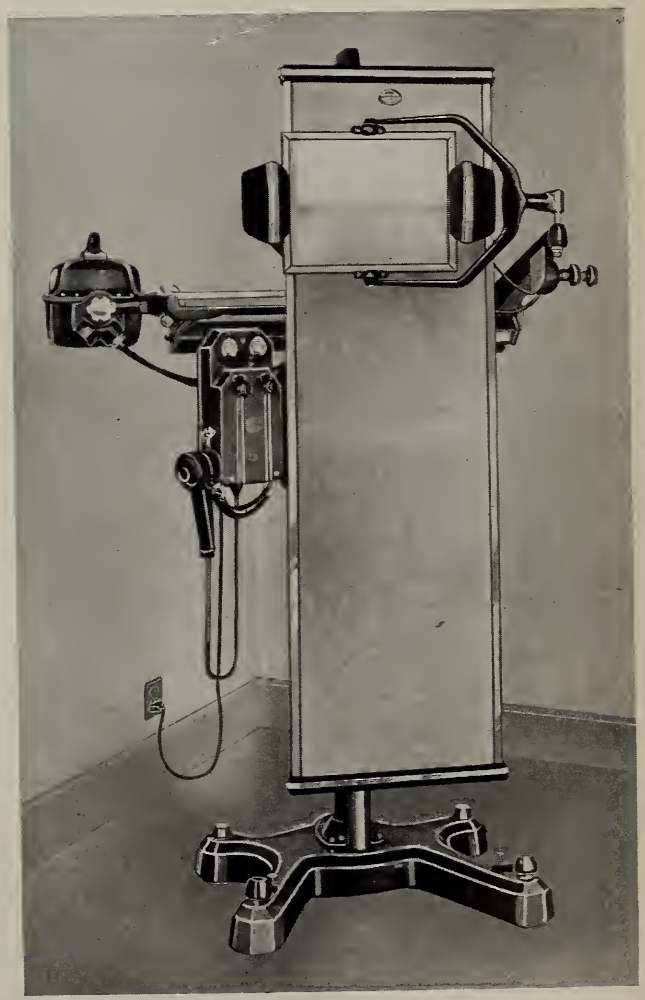
Every county medical society will be called upon to appoint a county committee on Medical Preparedness, to coördinate its activities with the State committee. A meeting of the members of the State and County committees will be held in Detroit on the occasion of the annual convention of the Michigan State Medical Society.. Announcements of the exact hour and place of this meeting will be forwarded to all members.

The Council of the State Society has officially endorsed the principle of national preparedness and has pledged the whole-hearted coöperation of the medical profession of this state in efforts to make adequate defense a reality.

The Michigan State Medical Society stands ready to aid in preparing this nation to defend itself against forces which threaten our people and our governmental, social and economic principles.







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INTERNATIONAL MEDICAL ASSEMBLY

The International Medical Assembly of the Inter-State Postgraduate Medical Association of North America will be held October 14, 15, 16, 17, 18, 1940, in Cleveland, Ohio.

Pre-assembly clinics will be given Saturday, October 12; Post-assembly clinics, Saturday, October 19, in the Cleveland Hospitals.

Monday, October 14

8:00 A.M.—Diagnostic Clinics

Diagnostic Clinics: Dr. Richard B. Cattell, Boston; Dr. John Musser, New Orleans; Dr. John Alexander, Ann Arbor; Dr. George W. Thorn, Baltimore; and Dr. Loring T. Swaim, Boston.

1:00 P.M.—Diagnostic Clinics and Addresses

Diagnostic Clinics: Dr. William F. Rienhoff, Baltimore; and Dr. David P. Barr, St. Louis.

Addresses

"Postoperative Management of the Surgical Patient," Dr. Frederick A. Coller, Ann Arbor.

"Some Observations on the Nature of Acute Nephritis," Dr. John P. Peters, New Haven, Conn.

"Management of the Complications of Pregnancy," Dr. Nicholson J. Eastman, Baltimore.

"Recent Advances in Chemotherapy," Dr. Chester S. Keefer, Boston.

"Treatment of Wounds," Dr. Frederick Christopher, Evanston, Ill.

"Intestinal Absorption as a Clinical Physiological Problem," Dr. Maurice B. Visscher, Minneapolis.

7:00 P.M.—Addresses

"The Interpretation and Treatment of Spells of Unconsciousness in Medical and Surgical Practice," Dr. Soma Weiss, Boston.

"Encephalopathies in Children," Dr. Bronson Crothers, Boston.

"Surgery of Hypoglycemia with Special Reference to Resection of the Pancreas," Dr. Vernon C. David, Chicago.

"The Immediate Treatment of Head Injuries," Dr. Donald Munro, Boston.

"Management of Pelvic Inflammatory Disease," Dr. John R. Fraser, Montreal.

"Common Errors in Cardiac Diagnosis," Dr. A. Carlton Ernstene, Cleveland.

Tuesday, October 15

8:00 A.M.—Diagnostic Clinics

Diagnostic Clinics: Dr. E. Perry McCullagh, Cleveland; Dr. Henry J. Gerstenberger, Cleveland; Dr. Donald M. Glover, Cleveland; Dr. Walter G Alvarez, Rochester, Minn., and Dr. William R. Cubbins, Chicago.

1:00 P.M.—Diagnostic Clinics and Addresses

Diagnostic Clinics: Dr. Russell L. Haden, Cleveland and Dr. Waltman Walters, Rochester, Minn.

Addresses

"Medical and Surgical Aspects of the Obstructing Prostate," Dr. Hugh H. Young, Baltimore.

"Protruded Intervertebral Disc," Dr. Howard C. Naffziger, San Francisco.

"Allergic and Non-Allergic Treatment of Asthma," Dr. Warren T. Vaughan, Richmond, Va.

"Tumors of the Kidney in Children," Dr. Herman L. Kretschmer, Chicago.

"Cancer of the Stomach," Dr. Howard K. Gray, Rochester, Minn.

"Treatment and Complications of Whooping Cough," Dr. Gerald S. Shibley, Cleveland.

(Continued on page 712)



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7:00 P.M.—Addresses

"The Treatment of Vesico-Colonic Fistula," Dr. Charles W. Mayo, Rochester, Minn.

"General Problems of Old Age," Dr. Lewellys F. Barker, Baltimore.

"Coronary Artery Disease," Dr. Roy W. Scott, Cleveland.

"Modern Treatment of Scoliosis," Dr. Alan deForest Smith, New York.

"The Treatment of Acute Traumatic Intracranial Hemorrhage," Dr. Eric Oldberg, Chicago.

"Successful Defibrillation of the Human Ventricles, the Establishment of a Resuscitation Squad in our Hospitals" (Motion Picture), Dr. Claude S. Beck, Cleveland.

Wednesday, October 16

8:00 A.M.—Diagnostic Clinics

Diagnostic Clinics: Dr. Raymond C. McKay, Cleveland; Dr. Thomas E. Jones, Cleveland; Dr. Italo F. Volini, Chicago; Dr. W. Wayne Babcock, Philadelphia, and Dr. Henry L. Bockus, Philadelphia.

1:00 P.M.—Diagnostic Clinics and Addresses

Diagnostic Clinics: Dr. Frank C. Knowles, Philadelphia, and Dr. James S. McLester, Birmingham.

Addresses

"Surgery of the Gall Bladder and the Bile Ducts," Dr. Roscoe R. Graham, Toronto.

"Esophagology in Relation to General Medicine," Dr. Chevalier Jackson, and Dr. Chevalier L. Jackson, Philadelphia.

"Common Errors in the Selection of Patients for Surgery," Dr. Irvin Abell, Louisville.

"Poliomyelitis, Early Diagnosis and Treatment," Dr. John A. Toomey, Cleveland.

"Endocrine Factors in Gynecological Disease," Dr. Otto H. Schwarz, St. Louis.

"The Management of the Acute Abdomen in Children," Dr. Charles H. Phifer, Chicago.

7:00 P.M.—Assembly Dinner

For members of the profession, their ladies and friends. Informal.

Dr. Chevalier Jackson, President of the Inter-State Postgraduate Medical Association of North America—Master of Ceremonies.

Addresses by:

Dr. Ross T. McIntire, Surgeon-General, United States Navy, Washington, D. C.

Dr. Nathan B. Van Etten, President, American Medical Association, New York, N. Y.

Thursday, October 17

8:00 A.M.—Diagnostic Clinics

Diagnostic Clinics: Dr. Louis Karnosh, Cleveland; Dr. W. James Gardner, Cleveland; Dr. Henry Cave, New York; Dr. Thomas Mackie, New York; Dr. Robert W. Keeton, Chicago; Dr. Claude F. Dixon, Rochester, Minn., and Dr. Russell L. Cecil, New York.

1:00 P.M.—Diagnostic Clinics and Addresses

Diagnostic Clinics: Dr. Alfred W. Adson, Rochester, Minn., and Dr. Cyrus C. Sturgis, Ann Arbor.

Addresses

"Acute Surgical Abdomen," Dr. Elliott C. Cutler, Boston.

"Infections of the Urinary Tract," Dr. William F. Braasch, Rochester, Minn.

"Malignancy of the Colon," Dr. Charles Gordon Heyd, New York.

(Continued on page 714)

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"Relationship of Ophthalmology to Systemic Disease," Dr. William L. Benedict, Rochester, Minn.

"Clinical Report and Evaluation of Low Temperature in Treatment of Cancer," Dr. Temple Fay, Philadelphia.

"Choice of Anesthesia," Dr. John S. Lundy, Rochester, Minn.

7:00 P.M.—Addresses

"Treatment of the Menopause," Dr. Elmer Sevringhaus, Madison.

"Physiological and Clinical Aspects of Intubation of the Small Intestine," Dr. W. Osler Abbott, Philadelphia.

"Surgical Aspects of Gastro-Intestinal Hemorrhage," Dr. Eldridge L. Eliason, and Dr. Julian Johnson, Philadelphia.

"Treatment of Luetic Aortitis," Dr. James E. Paullin, Atlanta.

"Benign Lesions of the Neck" (slides), Dr. Robert S. Dinsmore, Cleveland.

Friday, October 18

8:00 A.M.—Diagnostic Clinics

Diagnostic Clinics: Dr. Claude E. Forkner, New York; Dr. John J. Moorhead, New York; Dr. Wallace M. Yater, Washington, D. C.; Dr. Elliott P. Joslin, Boston, and Dr. Frank H. Lahey, Boston.

1:00 P.M.—Diagnostic Clinics and Addresses

Diagnostic Clinics: Dr. George Crile, Sr. and Dr. George Crile, Jr., Cleveland, Ohio; Dr. John F. Erdmann, New York, and Dr. George R. Minot, Boston.

Addresses

"The Modern Treatment of Congestive Heart Failure," Dr. George Herrmann, Galveston.

"Pathological Lesions of the Larynx" (colored movie), Dr. Dean M. Lierle, Iowa City.

"Herniated Nucleus Pulposis; and Diagnosis," Dr. Bernard H. Nichols, Cleveland.

IN MEMORIAM

Samuel F. Haverstock, of Detroit, Michigan, was born in Butler, Indiana in 1880. Dr. Haverstock was graduated from the Detroit College of Medicine in 1909 and interned at St. Mary's Hospital. He was a member of the staff of Lincoln Hospital. He died on August 9, 1940, after practicing in Detroit thirty-two years.

* * *

Fred Wilson Lee, Fairview, Michigan, was born in Union County, Kentucky, January 16, 1876, and was graduated from Louisville Medical College, Louisville, Kentucky, in 1900 and interned at a Railroad Hospital at Paducah, Kentucky, for two years. Later he served eleven months as Captain in the Medical Corps, A.E.F. Doctor Lee was President of O.M.C.O.R.O. Medical Society at the time he died, May 28, 1940.

The value of Pyrethrum in Scabies is well established through the clinical work of Dr. S. E. Sweitzer (Scabies, further observations on its treatment with pyrethrum ointment, Journal-Lancet, (Sept.) 1936, Vol. LVI, No. 9, p. 467.) who used it on 1,213 cases at the Minneapolis General Hospital. See advertisement, page 726.

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Take It and Like It

A friend claims that he went to the Governor's office on business instead of going to the Legal Advisor first and he says that it reminded him of the story of the inebriated gentleman who came staggering down from the upper deck of a two-story bus, insisting he wanted to get off because nobody was driving. He says we should elect a Governor instead of having one appointed.

Special notice to Fred Miner and Jim O'Meara: The Executive Committee of the Council held the August meeting at the Editor's cottage. *Perch was served.* Beginning at two o'clock, the meeting continued on through until exactly midnight, when the Chairman and Vice-Chairman of the Council had to motor to Grand Rapids to catch the 1:14 train on the Michigan Central. Bill Burns had intended to stay over and return in the morning but Carstens had some more business to talk over with Bill so he decided to continue his discussions while Jack Laux did the driving assisted by Andy Brunk.

Bill Burns writes, "We made the train in Grand Rapids by exactly one minute. Poor Doctor Carstens didn't get his composure back for the first hundred miles to Detroit!"

The Chairman writes, "I might add that we lost no time on the road to Grand Rapids. Twice we got off the road for about a block. To make a long story short we stepped on the train with 55 seconds to spare."

Such are the vicissitudes of a Councilor.

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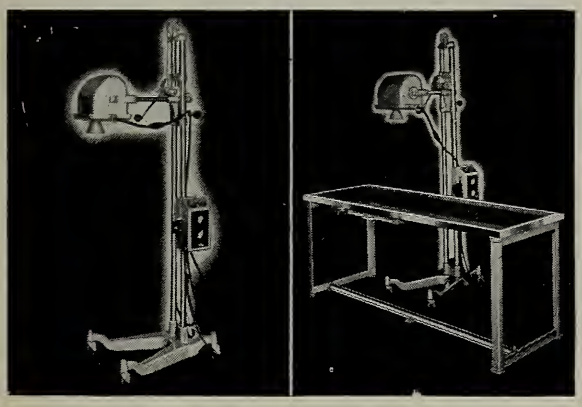
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Acknowledgement of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

GRADUATE MEDICAL EDUCATION. Report of the Commission on Graduate Medical Education. 1940. Composed and printed by the University of Chicago Press, Chicago, Illinois.

A TEXTBOOK OF PATHOLOGY. By W. G. MacCallum, Professor of Pathology and Bacteriology, The Johns Hopkins University, Baltimore. Seventh Edition. Thoroughly Revised. Philadelphia and London, W. B. Saunders Company, 1940. Price: $10.00.

This is the seventh edition of his standard reference book and textbook revised because of the great advances in medicine and related sciences since 1936. Dr. MacCallum here again does not attempt to dogmatically close a controversial subject but presents, in fair and impartial manner, the theories and facts as known. The illustrations are very clearly chosen and portrayed and where necessary colored plates are used. This is a reference book which should be at the hand of every practitioner of medicine.

DERMATOLOGIC THERAPY IN GENERAL PRACTICE. By Marion B. Sulzberger, M.D., Assistant Clinical Professor of Dermatology and Syphilology, Skin and Cancer Unit of the New York Post-Graduate Medical School and Hospital of Columbia University, Associate Attending Dermatologist, Monteflore Hospital, New York City. And, Jack Wolf, M.D., Attending Dermatologist and Syphilologist, Skin and Cancer Unit of the New York Post-Graduate Medical School and Hospital of Columbia University; Director of Dermatology, New York City Cancer Institute. Chicago, The Year Book Publishers, Inc., 1940. Price: $4.50.

The author has an international reputation for his fluidity of speech and writing as well as an enviable reputation as a dermatologist. He presents here the newest and most effective methods of treatment of the common skin diseases. The emphasis is entirely upon therapy but enough differential diagnosis is included to give the general practitioner a basis for treatment. The diseases are divided into fourteen large groups, which system should be an advantage in treating the conditions intelligently without having to make a fine diagnosis. The illustrations are limited to those which are of definite value in treating or diagnosing. The prescriptions are given in a flexible form to encourage the physician's individualization in handling.

SYNOPSIS OF THE PRINCIPLES OF SURGERY. By Jacob K. Berman, A.B., M.D., F.A.C.S., Assistant Professor of Surgery, Indiana University School of Medicine, Indianapolis. With 274 illustrations. St. Louis, The C. V. Mosby Company, 1940. Price: $5.00.

One of the epigrams which Berman gives his students is "a good surgeon is an internist who performs operations." The compendium well bears out the author's conception of surgery because he covers in concise form nearly every practical phase of the theory and practice of medicine and surgery. Pathology, physiology, histology, psychology, etc., are combined with practical suggestions in a usable form. It is well illustrated and clearly written.

(Continued on page 720)

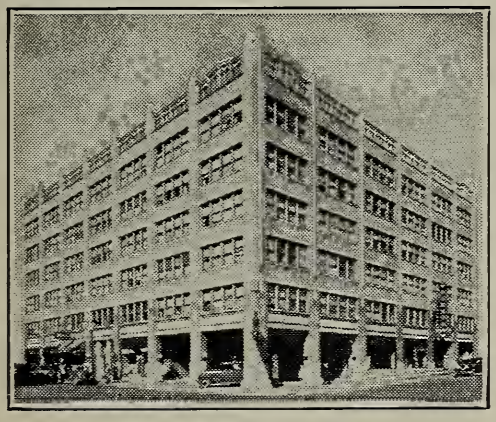
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COMPLETE GUIDE FOR THE DEAFENED. By A. F. Niemoeller, A.B., M.A., B.S., Author of "Handbook of Hearing Aids," etc. With a Foreword by Harold Hays, M.D., F.A.C.S., Author of "The Modern Conception of Deafness," etc., New York, Harvest House, 1940. Price: $3.00.

Mr. Niemoeller, with the help of medical men, has written this book for the instruction of the patients with impaired hearing, which presents first, in very simple language, the various causes of impaired hearing; and then, in short concise chapters, helpful hints for rehabilitation into society and much other data and information regarding the attitude of the hard of hearing toward movies, radio, etc. While some of the statements made are not universally accepted, still it is a volume which should render considerable intelligent advice to your patient with impaired hearing.

HANDBOOK OF HEARING AIDS. By A. F. Niemoeller, A.B., M.A., B.S., Author of "The Complete Guide for the Deafened," etc. Foreword by Harold Hays, M.D., F.A.C.S., Author of "The Modern Conception of Deafness," etc. New York, Harvest House, 1940. Price: $3.00.

As the name indicates, this book lists the history of the developments and a critical analysis of the various types of hearing aids sold for use by your patients whose hearing is impaired. It is simply and interestingly written and apparently is without prejudice. It should provide your answer to the impaired patient who seeks your advice.

MEDICAL NURSING. By Edgar Hull, M.D., F.A.C.P.; Clinical Professor of Medicine, Louisiana State University School of Medicine; Visiting Physician, Charity Hospital of Louisiana at New Orleans: Christine Wright, R.N., B.S., Graduate of Davis-Fischer Sanatorium, Atlanta, Georgia; Instructor of Nursing Arts, Charity Hospital School of Nursing, New Orleans, Louisiana, 1928-1939; Public Health Nursing, St. Mary Parish Health Unit and Experience Center, Franklin Louisiana, 1939: Ann B. Eyl, B.S., Assistant Dietitian, Cook County School of Nursing, Chicago, Ill.; formerly Instructor in Home Economics, University of Kentucky, Lexington; Therapeutic Dietitian, Charity Hospital of Louisiana, New Orleans; Dietitian, St. Vincent's Infirmary, Little Rock, Arkansas. 168 Illustrations including 11 Color Plates. Philadelphia, F. A. Davis Company, 1940. Price: $3.50.

These authors have approached the handling of various medical conditions from the standpoint of the doctor who directs the treatment, the nurse who administers it, and the dietitian who prepares the diet, and correlate these three viewpoints. It is a very complete book and to many physicians it probably is too complete in that it might tend to encourage the nurse to be a diagnostician and therapist by its completeness. It should be of considerable help to the physician who teaches student nurses.

THE EMPEROR'S ITCH. The Legend Concerning Napoleon's Affliction with Scabies. By Reuben Friedman, M.D., Assistant Professor of Dermatology and Syphilology. Temple University School of Medicine, Philadelphia. With ten illustrations. New York, Froben Press, 1940. Price: $1.50.

The author has written many historical volumes on scabies and in this monograph he debates the diagnosis of the itch of Napoleon Bonaparte. It is a very interesting and quickly read case report built up by the use of contemporary biographies.

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Jaundice*

Differential Diagnosis and Treatment

By Waltman Walters, M.D.
Rochester, Minnesota



Waltman Walters, M.D.

M.D., Rush Medical College in 1920; head of Section in Surgery of Mayo Clinic since 1924; Professor Surgery since 1936 in the Mayo Foundation. He is a Commander, Volunteer Service in the Medical Corps of the U. S. Naval Reserve. He is a member of the editorial board of "Minnesota Medicine" and Chairman of the editorial board of the "Archives of Surgery." He is a Fellow of the American College of Surgeons, the American Surgical Association, the American Medical Association, the Society of Clinical Surgery, the American Urological Association, Sigma Xi, the Southern Surgical Association and the Western Surgical Association.

▪ Diseases of the bile ducts are common and are often associated with or follow diseases of the gall bladder and liver. These diseases usually manifest themselves by their interference with the passage of bile through the ducts and result in biliary colic, obstructive jaundice or infection within the bile ducts, producing fever. Biliary colic may be caused by inflammation in the biliary passages or in the pancreas and liver, but it is most frequently the result of the presence of calcareous material in the gall bladder or bile ducts. It may or may not be associated with jaundice, but usually it is followed by jaundice of fluctuating degree. As in diseases of the gall bladder, there is usually some infection of the bile ducts or cholangitis associated with most diseases of the bile ducts. In a few cases, spasm or stenosis of the sphincter of Oddi with and without spasm of the first and second portion of the duodenum, will produce colicky-like pains in the right upper quadrant of the abdomen, simulating colic caused by gallstones.

Intrahepatic or Extrahepatic

When jaundice is present, a few days of study of the patient in the hospital is of great advantage, for not only does it allow preparation of the patient for operation by administration of a high carbohydrate diet, glucose, vitamin K and bile salts but also it is helpful in determining whether the jaundice is due to an intrahepatic or extrahepatic obstruction. Such observation also enables one to determine whether the jaundice is increasing or receding and thus, it is helpful in determining the best time for surgical interference. In most cases of intrahepatic jaundice, colicky-like attacks of pain have never occurred although there may have occurred at one time or another painful sensations in the upper portion of the abdomen. The stools of such patients contain bile and bile can be obtained on duodenal drainage because there is no obstruction of the extrahepatic bile ducts. Tumors in the head of the pancreas, usually carcinoma, are also the cause of painless jaundice. In these cases, since the pancreatic obstruction of the common bile duct prevents bile from entering the duodenum, the stools are acholic and the gall bladder is always distended although not always palpable because it may be covered effectively by an enlarged, hard, overlying lobe of liver. When the jaundice is obstructive and is due to a tumor in the head of the pancreas, the depth of jaundice increases progressively, the serum bilirubin usually being more than 15 mg. per 100 c.c. of blood; not infrequently it may reach the very high concentration of 30 or 40 mg. per 100 c.c.

The patient who has intrahepatic jaundice is a medical problem and the treatment con-

*From the Division of Surgery, The Mayo Clinic, Rochester, Minn. Read before the Meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 20, 1939.

sists of supportive measures and a high carbohydrate diet. On the other hand, the patient who has obstructive jaundice due to tumor in the head of the pancreas frequently has intense itching which quickly disappears when bile is returned to the gastro-intestinal tract; hence, the indicated surgical procedure in these cases is to make an anastomosis between the distended gall bladder and either the stomach or duodenum.

After this, the patient may enjoy satisfactory health for many months but as the tumor grows larger it compresses the duodenum, producing vomiting. In these cases a gastro-enterostomy will relieve this duodenal stasis and will prolong the patient's life for several months. Whereas the life of patients who have a tumor of the head of the pancreas averages about fourteen months after the performance of a cholecystenterostomy, I have had several patients live comfortably, free of jaundice, from two to four years. Experience has shown also that in about 15 to 18 per cent of these cases, an inflammatory lesion rather than a malignant lesion is responsible for the tumor in the head of the pancreas which produces the obstructive jaundice. This always should be a source of hope to the patient's relatives. If the mass is inflammatory the patient's recovery following relief of the jaundice is permanent.

Although a few cases have been reported in which a very extensive and serious surgical procedure, consisting of removal of the head of the pancreas containing the carcinoma, has been performed, the risk of the operation and the prolongation of life which has followed in these reported cases do not seem to me to warrant its use except in the rarest of cases, and usually in those cases in which the carcinoma originates in, and is confined to the papilla of Vater rather than to the pancreas. The operation has to be done in stages. In my experience, equally good palliative results at far lower risks have been obtained by the operation of cholecystenterostomy.

Choledocholithiasis

Stones occur much more frequently in the common bile duct than is generally appreciated. There is no doubt that many of the symptoms which persist after cholecystectomy are caused by stones in the common duct that were overlooked at the time of operation. The frequency with which stones are present in the common duct is emphasized by the fact that in 812 operations performed at The Mayo Clinic for benign lesions of the gall bladder and common bile duct during 1936, stones were found in the common or hepatic duct in 109 instances, or 13.4 per cent, of patients.

In 1937, among 850 patients who underwent cholecystectomy for cholecystitis (eighty-seven of whom were jaundiced), the hospital mortality was 2.3 per cent. Simultaneously with the cholecystectomy, in 237 cases, other major surgical procedures, exclusive of appendectomy, were performed. The common ducts of 186 of the 237 patients were explored and stones were found in the common ducts in eighty-eight instances. Stones were found in the gall bladders of seventy-five of these eighty-eight patients. In 1938, among 930 patients who underwent cholecystectomy for cholecystitis (eighty-three of whom were jaundiced), the hospital mortality was 1.8 per cent. Simultaneously with the cholecystectomy, in 239 cases, other major surgical procedures, exclusive of appendectomy, were performed. The common ducts of 174 of the 239 patients were explored and stones were found in the common ducts in seventy-eight instances. Stones were found in the gall bladders of seventy-three of these seventy-eight patients. Stones in the common duct afflict women about twice as frequently as men. No age group is exempt, but individuals between thirty-five and sixty-five years of age are most frequently afflicted.

As a rule, a patient having calculous cholecystitis relates a history of a long period of flatulent dyspepsia followed by intermittent attacks of typical biliary colic without jaundice. Later, when the cystic duct dilates sufficiently to allow the stone to enter the common bile duct, the colic is followed by transient jaundice and its attendant symptoms of acholic stools, dark urine and itching skin. With the development of cholangitis, secondary to the stones in the common duct, chills and fever may occur. The character of further attacks then depends on (1) whether the stone passes through the ampulla of Vater into the duodenum (which it rarely does), (2) whether it becomes permanently impacted in the ampulla, (3) whether it acts as a ball valve at

the lower end of the common bile duct or (4) whether it floats free in the bile stream without interfering with the passage of bile.

Extrusion of a stone into the duodenum is signified by abrupt cessation of colic and gradual and complete clearance of jaundice within a few days. Unless another stone descends from the gall bladder, there will be no further jaundice, although symptoms referable to the gall bladder may continue. Impaction of a stone in the ampulla is followed by unusually severe and protracted colic, which abates gradually, leaving a prolonged, dull ache and a marked residual soreness in the epigastrium and right hypochondrium. At the same time, the patient becomes jaundiced and the concentration of bilirubin in the blood serum is increased to as much as 10 or 15 mg. per 100 c.c.

The most characteristic type of obstruction caused by a stone in the common duct is produced by the ball valve action described by Fenger, in which the stone intermittently blocks the lower end of the common bile duct until sufficient accumulation of bile above the point of blockage and consequent dilatation of the duct release the stone. The classical symptoms of this condition are those of typical severe, biliary colic with chills, sweating and fever (the intermittent hepatic fever of Charcot) and variable jaundice. These attacks are extremely severe and persist until the obstruction is relieved, or until the pain is relieved by morphine. Between major attacks, the patient is usually comfortable and is in comparatively good health, but minor attacks and gaseous dyspepsia are usually present to some extent.

There are no physical findings pathognomonic of stone in the common duct. Icterus is the most common observation although it may be absent in as many as 33 per cent of cases and it is rarely deep or persistent. It seldom acquires the greenish hue characteristic of malignant biliary obstruction. The liver may be enlarged and tender, especially shortly after an acute attack of colic. The stools may be acholic, but not, as a rule, for long periods, since the biliary obstruction is usually intermittent.

Duodenal intubation usually will produce a good flow of bile if it is repeated over a period of several days. Weir reported partial flow of the bile in 90 per cent of cases, and in 70 per cent of cases the concentration of bilirubin in the blood serum averaged less than 10 mg. per 100 c.c. The color of the skin and the concentration of bilirubin in the blood serum fluctuate considerably from day to day, as a rule; this fact aids in distinguishing the increasing or fixed levels which occur in the presence of neoplastic obstruction or intrahepatic jaundice.

Surgical Treatment of Choledocholithiasis.—In my experience, choledocholithotomy can be performed with little more risk than primary cholecystectomy. Careful examination of the common bile duct should be an integral part of every operation on the biliary tract. If the duct is enlarged beyond its normal size (comparable to that of a goose quill), if a stone is palpable or if there is anything in the patient's history, such as jaundice, chills or fever, that is suggestive of the possibility of a stone in the common duct, exploration of the duct should be performed as a routine procedure. Exploration of the common bile duct should be advised also for any patient who has had recurrent and intractable symptoms following a biliary operation of any kind. Other indications for choledochotomy are cases of chronic or subacute pancreatitis or chronic or acute cholangitis.

It has been my practice to open the gall bladder and remove its stones first, so that they will not enter the common duct during exploration of it. The disposition of the gall bladder after removal of its stones should be left until the common and hepatic ducts have been dealt with effectively. Palpation of the common bile ducts is then carried out by introducing the index and second fingers of the left hand into the foramen of Winslow, and with the thumb above the hepatoduodenal ligament, gently compressing the duct between the thumb and fingers. By working upward to the longitudinal fissure and downward to the end of the common bile duct, the duct may be allowed to slip through the fingers. It is surprising with what accuracy small fragments of stone may be detected. The elusive, single, floating stone may be "milked" upward from the pancreatic portion and fixed in a favorable position for removal.

Enlarged lymph nodes in the gastrohepatic omentum or localized indurated regions in the pancreas are occasionally indistinguishable from calculi and may force the surgeon to open the duct to make sure. It is frequently difficult or impossible to feel a single small stone in the lower end of the common bile duct or in the ampulla of Vater before the duct is opened. If the duct is enlarged or if there is a clinical history of recurring chills, fever and jaundice, I make it a rule to open the duct, even though a stone cannot be felt. With a probe or a scoop in the common bile duct as a guide, a small stone may often be palpated that otherwise could not be felt. An exceedingly difficult and serious operation often can be made simple and safe if the stone in the common bile duct is located by palpation and if the surgeon works from the outer right side of the abdomen toward the duct at a depth of approximately that of the common bile duct. By grasping the duct and fixing the stone between the fingers of the left hand, the surgeon can open the duct and remove the stone by cutting directly down on it. The stone or stones immediately present in the opening are removed and the bile and loose débris are gently sponged out. Scoops of various sizes are then introduced into the common and hepatic bile ducts and all remaining free stones are removed carefully with as little manipulation as possible.

Not infrequently a scoop or probe will pass by a stone, giving the surgeon the impression that a stone is not present. For this reason, it is important to make the incision in the duct large enough to admit the finger, provided that the duct itself is sufficiently dilated. By using the forefinger as a probe, the surgeon can be almost certain that the interior of the duct is clear.

Removal of a stone or stones from the ampulla of Vater is most easily accomplished by first passing a scoop into the ampulla, then guiding the scoop with the fingers outside the duodenum and gradually manipulating the stone until it is crowded into the hollow of the instrument. By maintaining pressure on the anterior surface of the duct with the fingers of the right hand and by pressing the scoop and its contained stone against them with the left hand, it is possible to hold the stone in this position as the scoop is gradually withdrawn. The surest way to palpate a small stone in the ampulla, especially when the surrounding pancreatic tissue is swollen, is to pass as large a probe as will comfortably fit into the duct down to the ampulla and then to palpate the ampulla from without, leaving this instrument in place as a guide. Often the duct is greatly elongated in such cases, and there may also be considerable enlargement of the head of the pancreas. This makes it difficult to locate the ampulla, even when there is a comparatively large stone in it. One of the best instruments to use in locating the ampulla and to demonstrate whether it is open is a large curved hemostat or a flexible probe with a rounded, bullet-shaped end. Frequently, we have been able to push such an instrument into the duodenum when nothing else would go through the ampulla. This procedure is then followed by passage of the exploring scoop through the ampulla into the duodenum.

Suppurative Cholangitis

Suppurative cholangitis is a very serious condition, most commonly occurring among persons past middle age. It usually represents a recurrence of previous infection in the biliary tract and usually is precipitated by biliary obstruction arising from a stone, stricture, pancreatitis or a pancreatic neoplasm, parasitic invasion of the biliary tract or ascending infections from the gastro-intestinal tract, particularly after cholecystogastrostomy, duodenostomy or operation for cholecystoduodenal fistula. The bacteria isolated are Bacillus coli, streptococci, staphylococci, Bacillus typhosus, pneumococci and rarely, Bacillus ærogenes capsulatus.

The pathologic picture depends on the previous state of infection and dilatation of the biliary passages and on the virulence of the infecting organisms. If the biliary passages are already sclerosed and dilated, the process may continue until a state of chronic suppuration is reached. This is not uncommon in cases of stricture and stone. The liver is enlarged; at first it is brownish, then green in color; its consistency is hard; the biliary passages are dilated and exude pus and bile on sectioning. There may be numerous minute or large abscesses throughout the liver and the inflammatory process may involve the pancreas or the peritoneum, or it may extend into the portal vein, producing pylephlebitis.

The onset of this condition is frequently insidious. The acute symptoms are those of biliary obstruction: chills, fever, prostration, rapid pulse, nausea and jaundice. The course is intermittent, with remissions and relapses. There may be severe pain, but it is often mild or absent. There may be a gradual wasting which is suggestive of a malignant lesion. Because of enlargement of the liver, the right side of the diaphragm is often elevated. Marked leukocytosis and a rapid sedimentation rate are of significance. The concentration of bilirubin in the blood serum varies with the degree of obstruction and the extent of hepatic damage. Only seldom may positive blood cultures be obtained.

Diagnosis.—The diagnosis may be difficult; sometimes it cannot be made before operation or necropsy reveals the true pathologic condition. Suppurative cholangitis should be suspected if severe constitutional symptoms develop in a person who relates a history of cholelithiasis or choledocholithiasis or a biliary obstruction caused by a neoplasm. In the cases for which the patients have not had previous surgical treatment, malarial and amebic abscess of the liver must be ruled out. Pylephlebitis may accompany suppurative cholangitis. They rarely can be definitely distinguished from each other. Prognosis is doubtful if there is diffuse invasion of the liver with multiple abscesses.

Treatment.—Treatment is best directed toward prevention by means of early attention to disease of the biliary tract, removal of a diseased or stone-filled gall bladder and relief of obstructive lesions of the biliary tract as soon as the diagnosis can be made and before this serious condition has developed. Drainage of the common bile duct by means of a T tube may be advisable. In an occasional case of tumor of the head of the pancreas (producing biliary obstruction) cholecystogastrostomy or choledochoduodenostomy may be done. If suppuration is extensive and multiple abscesses have developed, surgical intervention may seem useless, but recovery may occur after drainage of the common duct and the large abscesses. Medical treatment has not been of much value in the past, but it is to be hoped that sulfanilamide will be of aid in the future.

Strictures of the Common and Hepatic Ducts

Strictures of the bile ducts are commonly classified etiologically into four main groups, namely, (1) congenital strictures; (2) traumatic strictures, (3) inflammatory strictures and (4) strictures caused by tumors.

Congenital Obliteration of the Bile Ducts.—Congenital obliteration of the bile ducts is a rare condition characterized anatomically by closure or atresia of the ducts. The cause of obliteration as yet has not been definitely determined. It has been variously ascribed to congenital syphilis, fetal peritonitis, catarrh of the ducts and congenital malformations. Holmes and Phillips expressed the opinion that in most instances the obliteration is the result of a developmental anomaly, but that undoubtedly some cases are caused by catarrhal inflammation of the ducts. Rolleston and McNee, on the other hand, stated that predominantly the disease is started by poisons derived from the mother; these are conveyed to the liver of the fetus, where they set up cirrhosis and descending obliterative cholangitis. Ladd, who has had a large personal experience with the condition, expressed the opinion that it is a developmental anomaly. He pointed out that the bile ducts, in their development, pass through a solid state analogous to that of the intestine, and that if normal development continues, this solid cord becomes vacuolated; the vacuoles coalesce and the lumen is re-established. An arrest of development during the solid stage explains the malformations found.

The gross pathologic findings associated with these lesions are icterus of all the tissues of the body, an enlarged, firm liver with irregular pebbly surface and a wide variety of malformations of the ducts. The most common types are (1) cases in which there are no extrahepatic ducts, (2) cases in which there is atresia of the hepatic ducts, (3) cases in which there is atresia of the common bile duct, (4) cases in which the gall bladder is represented by a cyst of moderate size not connected with the common duct and in which there may or may not be common or hepatic ducts, (5) cases in which the gall bladder connects directly with the duodenum, but in which there are no other extrahepatic ducts, (6) cases in which there is stenosis of the common bile duct plugged with inspissated bile, causing complete obstruction and (7) cases in which there

is narrowing of the common duct causing partial obstruction.

On microscopic examination of the liver in such cases, a severe degree of interlobular and intralobular fibrosis with infiltration of round cells is seen. The biliary capillaries are plugged with greenish-black inspissated bile. The hepatic cells contain granules of bile pigment. The bile ducts in the involved region are reduced to fibrous cords or they may be altogether absent. Dilatation of the ducts above the point of obstruction is the rule.

The chief presenting symptom of the condition is jaundice. This may be present at birth or it may appear a few days or weeks after birth. Jaundice increases until the skin has assumed a greenish hue. The stools are acholic as a rule, but at times may give a positive reaction to the test for presence of bile, even in cases of atresia or complete absence of bile ducts. This is explained by the fact that the bile is carried by the blood stream to the mucosa and is excreted by the mucosa into the lumen of the intestine. The urine is dark and gives a positive reaction to the test for presence of bile. The concentration of bilirubin in the blood serum is elevated; the test for bilirubin gives a direct reaction. Bleeding and coagulation times are usually prolonged. Subcutaneous hemorrhages and bleeding from the gastro-intestinal tract are late developments. Nutrition often is maintained surprisingly well. The liver is enlarged, firm and slightly irregular. The spleen may be enlarged. Other physical findings are not remarkable.

Diagnosis usually can be made by a process of elimination with great certainty by the end of the second month of life. When the diagnosis has been made, an exploratory laparotomy should be recommended. Ladd has reported a series of forty-five patients who had congenital atresia of the bile ducts and has shown that, although an occasional infant may live for many months without bile entering the intestine, the majority of patients die within six months. Of Ladd's series of forty-five cases, there was complete obstruction of the duct in forty. Of these forty, the condition in fifteen was amenable theoretically to relief by surgical methods. In other words, 37 per cent of the patients presented possibilities of cure. Nine of the operable patients, or 60 per cent, recovered and have remained free of jaundice and have developed normally. According to Ladd, operation should be performed between the second and fourth months of life and choledochoduodenostomy is the operation of choice.

Acquired Benign Stricture of the Bile Ducts.—Acquired benign stricture of the bile ducts may be defined as an occlusive or obliterative process involving the common and hepatic ducts. Occasionally, obliteration of the duct is the result of an inflammatory process which destroys the mucosal lining of the duct and converts it into a fibrous cord. Ulceration or perforation of the ducts by a stone may occur, occasionally producing a stricture. Such cases are rare. Strictures of the common and hepatic ducts in the great majority of cases are traumatic in origin; they follow damage to the ducts that occurs during surgical procedures on the biliary tract. The incidence of traumatic stricture is low, but the condition is such a tragic accident that it presents an eloquent argument against the performance of operations on the biliary tract other than under the supervision of well trained surgeons.

Injury to the common bile duct is usually referable to anomalies of the ducts or adjacent blood vessels which were not recognized at the time of operation, distortion of the parts produced by disease, inaccurate attempts to control bleeding in the vicinity of the ducts, or failure to expose adequately the common duct both above and below the cystic duct before clamping and sectioning the cystic duct. If the common duct is injured under such conditions, it should be repaired immediately.

Injured portions of bile ducts become repaired spontaneously in some cases, unless too much of their circumference and continuity has been destroyed, but when the injury is extensive, trauma, plus latent or active infection in the walls, may result in obliterative fibrosis or cholangitis, which results in stricture. In many cases the process is comparatively well localized, and is annular and tubular. At secondary operation, it is often impossible to determine just how the injury occurred. In such cases, ordinary landmarks are obliterated and it is often difficult to identify the distal portion of the duct

or even to determine the exact site of the stricture. A frequent site of stricture is the junction of the cystic and common ducts and the next most frequent is the supraduodenal portion of the common duct. Strictures occurring at the papilla or strictures of the hepatic ducts are much less frequent.

Benign stricture of the ducts is an extremely serious condition, since it produces continuous or intermittent biliary obstruction with the added element of extensive and progressive chronic cholangitis and pericholangitis. Hydrohepatosis is produced and unless surgical repair of the duct with adequate drainage of the biliary system is performed, early biliary cirrhosis of advanced degree will develop. Splenomegaly and ascites occur in advanced cases. If infection of the biliary tract becomes active, suppurative cholangitis with formation of abscesses in the liver is a frequent development.

Symptoms and Diagnosis.—Symptoms of stricture are not particularly pathognomonic. The jaundice caused by obstruction of the common bile duct may have several causes, such as a stone in the ampulla, pancreatitis, carcinoma of the head of the pancreas and carcinoma of the ampulla of Vater, and it should be remembered that the same conditions may develop and may be the cause of jaundice after previous operation on the biliary tract. In the presence of jaundice associated with symptoms of stone in the common bile duct, the surgeon excises the diseased gall bladder, removes what he believes to be all of the calculi from the common bile duct and after determining its patency, inserts a drainage tube. The patient convalesces uneventfully, but later, when the tube is removed, a biliary fistula forms. Healing of the fistula is followed by pain, jaundice and fever and the stools become white. The possibility is that the surgeon is dealing with either a stricture of the common bile duct or an overlooked stone (even after careful exploration). Prolonged drainage of bile from the incision after cholecystectomy usually means that an injury to the common duct has occurred or a stone of the common duct has been overlooked. Under these circumstances, with cessation of drainage of bile, evidences of biliary obstruction occur and are characterized by pain, jaundice and occasionally chills and fever. If the fistulous tract again becomes patent and bile is discharged, evidences of biliary obstruction disappear, recurring again when the fistula closes.

Treatment.—Benign stricture of the bile ducts is preventable in most cases, but in a few cases it may occur because of the diffuse nature of the infection in the biliary tract and because of the condition of the patient. In addition to emphasizing the use of care during separation of the gall bladder and cystic duct from the common duct, I call attention to certain important general principles in the prevention of strictures: early recognition and early surgical treatment of diseases of the gall bladder and bile ducts, thorough and accurate technic in the surgical procedure and complete primary operations whenever possible. Moynihan stated: "Secondary operations upon the biliary system are among the most difficult tasks in surgery. To obtain the best results all the highest qualities of the surgeon may be called into play: courage, resource, patience, accuracy, and rapidity of judgment, the finest craftsmanship, and a tranquility of mind and action that nothing can disturb." Cases of stricture of the bile ducts should be considered as serious surgical risks having a high mortality, but the prospects of relief or cure without surgical intervention in such cases are even less than in cases of malignant disease.

The most significant desiderata in the treatment of these patients are that immediate drainage of bile is imperative and that a permanent passage to the intestine must be established before cure is complete.

For a patient who has deep jaundice without a biliary fistula, it may be advisable to incise the stricture and insert a Mayo-Robson drain or a T tube to conduct the bile to the exterior. If cure does not result, a second operation to reestablish the biliary channel can be more safely undertaken. Invariably cholangitis is associated in these cases; it improves, however, after prolonged drainage of bile. In the presence of a total biliary fistula of short duration, it is frequently advisable to delay the reconstructive biliary intestinal anastomosis until most of the signs of infection in the liver and ducts have subsided. The mere incision of a stricture and insertion of a drainage tube cannot be consid-

ered a curative measure because the stricture usually reforms and symptoms return after the rubber tube has been removed or passed. There is no method corresponding to the passage of sounds in the treatment of urethral stricture to maintain the patency of the common bile duct after a stricture has been incised; moreover the flow of bile is easily obstructed because of the low secretory pressure of the liver. Cholecystenterostomy is rarely practicable because the gallbladder usually has been removed; also if it is present, it may be diseased and thus not be suitable for anastomosis, and the cystic duct often may be obstructed by obliterative inflammation. Plastic enlargement of the strictured common duct is usually impossible and rarely satisfactory, but transplantation of an established external biliary fistula into the duodenum for patients who have complete stricture of the common and hepatic ducts is sometimes attended by brilliant results. From the experimental standpoint, resection of the stricture with immediate end-to-end anastomosis is the ideal method and when this can be done satisfactorily, the outcome is usually successful. Eliot, in a collected series of cases which he reported in 1936, found the method to be followed clinically by a high incidence of good results.

Results of Treatment.—A study of eighty consecutive cases of stricture of the common bile duct in which surgical procedures have been performed at The Mayo Clinic by the author forms the basis of an evaluation of the types of operation performed.

In forty-nine, or 61 per cent, of the eighty cases, choledochoduodenostomy or hepaticoduodenostomy was performed with a hospital mortality of 6 per cent. Thirty-three, or 68 per cent, of these patients have been well without evidence of recurring obstruction, eight for more than five years and eight for more than three years.

In twelve of the eighty cases, or 15 per cent, plastic operations have been performed on the duct, consisting of excision of the stricture with anastomosis of ends of the duct and, in a few cases, plastic enlargement of the narrowed or strictured portion of the duct, usually with partial excision of the strictured portion. Seven, or 58 per cent, of these twelve patients have been free from evidence of biliary obstruction, three for more than five years and one for more than three years.

Other types of surgical procedures such as cholecystoduodenostomy and cholecystogastrostomy also have been used when the gall bladder remained.

When the entire length of the extrahepatic biliary tract was strictured, external biliary fistulas were established in fifteen cases, and in seven of these the fistulas have been transplanted into the stomach or duodenum. In two such cases, in which external biliary fistulas were established, an internal fistula between the biliary fistula and the duodenum developed, apparently because of necrosis caused by pressure of the catheter on the wall of the duodenum. Both of these patients are living and are relieved of biliary obstruction.

The hospital mortality in the series of eighty consecutive cases was 12.5 per cent.

In seventy-seven of the eighty cases, stricture followed previous operations on the biliary tract. In 89 per cent of cases the previous operative procedure was cholecystectomy, in 11 per cent of which simultaneous operations were performed on the common bile duct, whereas in 7.5 per cent, the previous operation was cholecystostomy.

In spite of encouraging results in the surgical treatment of stricture of the common bile duct, the seriousness of the condition should not be minimized, for, in 8 to 10 per cent of the cases in which accurate anastomosis could be made between the ends of the duct after excision of the stricture or between the stump of the duct above the stricture and an opening made in the duodenum (choledochoduodenostomy or hepaticoduodenostomy), episodes of biliary obstruction recurred, and of the eighty patients, 19 per cent died over variable periods of time after returning home.

Anesthesia in Shock

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■ ANESTHESIA in shock should have two aims; the anesthetization of the patient, so that the necessary surgery may be accomplished and the exhibition of various agents for the support of the patient during and after such surgery.

Local Block.—If possible, stimuli from the region of the field of operation should be blocked. This does not take place with general anesthesia, so the use of some type of local infiltration or field block is to be recommended for this purpose.

General.—It may be necessary at the same time to give some kind of general anesthetic. The best and safest agents we have are nitrous oxide and ether, by inhalation. Incidentally, inhalation is the method of choice for a general anesthetic with a patient in shock. It gives the anesthetist control of the rate and amount of administration and allows him to combine 0_2 and CO_2 with the anesthetic drug as indicated or to readily give artificial respiration if it becomes necessary. The intratracheal method is to be recommended where it is at all practicable.

Nitrous Oxide.—N_20 has no physiological or pathological contraindications. It does not produce very profound relaxation, so is not always sufficient for whatever surgery may be necessary. Generally speaking, however, it should be the basis of the general anesthesia and if field block has been done, is often sufficient. It may be supplemented by ether in appropriate amounts.

Cyclopropane is a suitable anesthetic, particularly when there has been hemorrhage. It provides for a liberal amount of oxygen, and is readily controllable. Pre-medication should be avoided with this drug.

Ether has the virtue of being a mild cardiac and respiratory stimulant so it has a place in the anesthetization of the shocked patient. It is best used as a synergist with N_20, as both induction and recovery with ether are slow, thus depriving us of a certain amount of control. Since spinal anesthesia tends to increase shock, it is not to be recommended in these cases, although it has been said that it is without danger. Certain quick-acting barbiturates, given intravenously, may have a place in this type of case, provided deep narcosis is not desired.

General Care

The general operating room care of the patient should be supportive, rather than too energetically stimulating. The patient should be kept warm, by hot water bottles on the operating table if necessary.

Fluids should be freely given by Murphy drip and hypodermoclysis until hemorrhage has been controlled and then intravenously. At this time, also, blood transfusion is of value and can be done before the operation has been completed.

The head of the table should be kept moderately low—about 15° to 20° Trendelenburg.

Oxygen should be supplied freely, combined with sufficient CO_2 to prevent acapnia and should be given under a pressure of 5 to 20 mm. Hg, to lessen the respiratory effort required of the patient.

Stimulants such as caffeine, camphor, adrenalin, etc., should be used sparingly. They act by further depleting an already diminished reserve.

Traumatic Injuries.—Patients suffering from traumatic injuries tolerate morphine relatively well if pain is present. If field block is used, however, the depressant effects of a large dose of morphine which has been recently given may suddenly become manifest, so this fact must be borne in mind.

Bearing in mind the above points, the patient suffering from severe shock is still a poor operative risk. Unless the contemplated surgery is urgently necessary, it will usually be found that at least an hour or two would be well spent in administering fluids, and restoring body heat.

During this time the patient will usually recover sufficiently from the immediate shock to greatly improve the operative risk, and it is rarely that a short delay, during which the patient is under close supervision, will not improve the chances of ultimate recovery.

Conclusions

1. Coöperation is needed between surgeon and anesthetist to select the agent and method best suited to the individual case.
2. The necessity of a thorough knowledge of the physiology and pharmacology of anesthesia is required on the part of the anesthetist with the ability to meet emergencies as they arise with the minimum of interference with the work of the surgeon.
3. The desirability of local infiltration or field block, combined with a general inhalation anesthetic.
4. Operating room treatment of the patient should be aimed at support, active stimulation being used with care.
5. Morphine is a valuable drug, the untoward effects of which may rather suddenly supervene under certain circumstances.
6. When at all possible, sufficient time should be allowed before actual operation, for the patient to recover, at least partially, from the original shock.

UNITED STATES SENATE

September 30, 1940.

To the Editor
Michigan State Medical Society Journal:

I am opposed to State Socialism in any field of action. I am completely opposed to Socialized Medicine, and to any federal subsidies that would lure the States into any such experiments. This does not imply any lack of interest in legitimate and progressive coöperaton between organized society and organized medicine in the promotion of sound developments in behalf of the Public Health Service, whether State or National. On the contrary, the continuing interest of government in the physical welfare of our people is an absolute necessity. But that is a totally different thing from turning the Doctor into a virtual employee of the Commonwealth, and from attempting to regiment his skill and genius and philanthropy on the basis of a Bureaucratic goose-step. Not for me! I want "free Doctors" just as I want "free Labor" and "free Enterprise" and "free men" in every other phase of "free life" in "free America."

With warm personal regards and best wishes,

Cordially and faithfully,
A. H. VANDENBERG.

Impediment to Circulation*

Occasioned by Pulmonic Interstitial Emphysema and Pneumomediastinum

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IT HAS BEEN shown experimentally[11] and clinically[4] that air may leak into the connective tissue sheaths of the pulmonary arteries and veins from the surrounding alveoli, under certain conditions, and produce bubbles which so press upon these vessels as to interfere with the circulation through the lung. With continued influx the air may travel along these sheaths to the mediastinum and there accumulate as large blebs which indent the heart and great vessels. Right heart dilatation was demonstrated by x-ray in a cat which had generalized interstitial emphysema of lungs and mediastinum. The circulatory embarrassment resulting from this aberrant air may be serious, and attended by the usual clinical signs such as dyspnœa and cyanosis. It may be so great, particularly in children, as to cause death.[4,13,16] Often, however, it is transitory, and clears up in a fortnight or even less.[6]

Experimental Studies.—Pulmonic interstitial emphysema may be produced experimentally in the living cat or other animal by blowing air through a catheter into a local region of the lung, as the lower lobe.[11] This causes hyperinflation of the alveoli, and air leaks through numerous ruptures which occur in the capillary meshes of the strained and weakened bases of those alveoli which invest the branches of the pulmonary blood vessels. Though these artificial openings, because of their minute size, are difficult to demonstrate histologically, their positions may be indicated, after such an operation, by collapsing the affected lobe, and then filling it

*From the University of Western Ontario Medical School, London, Ontario. Condensed from an address given before the Michigan Trudeau Society at Lansing, Michigan, on October 6, 1939.

with hot gelatin in which fine particles, such as carmine, are suspended.[12] Sections from this region, after suitable fixation, show heaps of the particles on the air side of the bases of the perivascular alveoli overlying the pneumatized sheaths. These particles have been left there as the gelatin, in which they were suspended, filtered through the smaller rupture holes. From the larger rupture openings, streams of particles project into the gelatin-air mass in the sheaths.

In working out the mechanics of this process of leakage, an unexpected reaction of the alveoli overlying the pulmonic vascular sheaths was disclosed. It would be thought, naturally, that when these alveoli were overdistended with air, as in the experiment just mentioned, they would press *towards* the blood vessel. On the contrary it has been found that, due to the structure of the parts concerned, these alveoli then *pull away from* the blood vessel.[11] The linear dimension of the outer sheath boundary, made up of approximated alveolar bases, is accordingly enlarged, and the cross section of the sheath tends to widen. As a result, the pressure within the sheath falls; in other words, a pressure gradient from alveolus to sheath is created. So air, following lines of least resistance, breaks through the extremely thin floors of the perivascular alveoli. This overinflation of a region of lung, particularly if sudden, forcible and prolonged, is apt to be attended by air-leakage causing interstitial emphysema. Under such circumstances, too, I have sometimes found free blood, evidently from ruptured capillaries, in the sheaths, together with increased tissue fluid.

This enlargement of the periphery of the sheath may be called the external factor, or "Factor A." There is another factor (internal, or "Factor B")[15] which may become operative in the enlargement of the volume of the vascular sheath, and that is the diminution of the area of the inner border of the sheath, which is really the periphery or adventitia proper of the blood vessel. It would seem to come into being with a failing heart, with consequent diminished blood volume in the pulmonary blood vessels. Thus we find clinical cases of pulmonic interstitial emphysema and pneumomediastinum, such as those of Scott,[17] which occurred after or during prolonged severe muscular exercise. It may arise, too, in lifting heavy weights, or straining at stool or in childbirth, when the increased intrathoracic pressure prevents venous blood from freely entering the chest, so that the right heart output is depleted. Secondarily, Factor B may arise as a consequence of the aforementioned aberrant air in the sheaths. Hence the descending pressure gradient from alveolus to vascular sheath may be the resultant of the two factors, A and B; indeed this is always the case after air has invaded the sheaths, and the surrounding alveoli remain hyperinflated.

Clinical Importance.—Pulmonary interstitial emphysema is important clinically because of this encroachment by air bubbles upon the space of the vascular system. Here the immediate cause is thought to be frequently compensatory alveolar hyperinflation (emphysema) arising as a result of the volume diminution occasioned by an atelectasis.[13,14] Here the same two adverse conditended alveolar bases, and (2) the creation of a positive pressure gradient from alveolus to vascular sheath, would seem to be operative. In addition, the weakening of the alveolar bases due to local inflammation probably makes them still less air-competent.[7] Coughing and straining probably favor leakage.

In a child, whose right main bronchus became occluded by peanut fragments, massive atelectasis of the parts beyond was accompanied by extensive compensatory alveolar ectasia, particularly in the opposite lung, which showed, at autopsy, marked interstitial emphysema. This had gone on to pneumomediastinum. Death was ascribed mainly to the consequent circulatory retardation.[4] Hamman[6] states that there are cases where the patient is physically passive when the leakage occurs.

Pathological Demonstration.—In the fresh lung of the experimental animal or human subject showing well marked pulmonic interstitial emphysema, air bubbles may be seen plainly at the root of the lung and often produce bulgings in the visceral pleura. Ordinary autopsy slices of fresh lungs do not show the air bubbles well; indeed they may be quite overlooked. In the posterior mediastinum large blebs are found which, however, quickly disappear like bursting soap bubbles when the region is opened. Froth-like formations are often seen overlying the heart (the pericardial sac is airless) and along the blood vessels leading to, and beyond, the su-

perior and inferior thoracic apertures. To gain good impressions of the air in sections, the collapsed lung must be filled with fixative and well hardened in the condition of inspiration.[14] If this is done promptly after death, the patterns of the air loculi are preserved. Sections then show air in sheaths as small as ¼ mm. in diameter. In cross sections the air-dilated sheath is striking. The thin strands of residual connective tissue spanning the intervals between the bubbles have been compared to cobwebs.[4,14] In such cases the blood channel is seriously encroached upon, and even altogether obliterated. As air works its way to the larger stems of the hilus its obstructive effect becomes progressively greater as it dams back the blood from more and more of the lung substance. Lateral chest pain may be so produced, and may be particularly of arterial origin.[13,14]

Clinical Consideration.—In the experimental cases the air is propelled along the sheaths by the force of the continuing artificial blast; but in the clinical cases it is mainly moved on by respiratory,[9,10] coughing,[14] straining and other acts. In animals such as man, which have obvious septa between the secondary lobules of the lung, the air may invade these and extend even to the pleura to form blebs under it. It is possible that one or more of these may rupture, so causing pneumothorax, though I have not demonstrated such a case. The baleful effects of air pressure in the mediastinum are often alleviated naturally by escapes upward, downward, forward or even laterally through the ruptured wall with the supervention of a "spontaneous" pneumothorax. The ensuing collapse of the lung would stop further leakage. Where life is threatened the clinician may remove the air *via* an incision at the root of the neck,[5,8,18] and he may do an artificial pneumothorax to stop further leakage.[13,14] The extraneous cause (as impacted foreign body in a bronchus) should, if possible, be removed. The curious, predominantly systolic, "crunching" sound, heard loudly over the precordium on stethoscopy, and sometimes even with the unaided ear,[6] is due to the cardiogenic oscillation of air bubbles which have worked themselves forward between the pleura and pericardium. Direct pressure on the coronaries[13,14] may give rise to anginoid pain, so misleading the clinician.[6]

Etiology.—Pulmonic interstitial emphysema and pneumomediastinum have been caused in this way by the use of too high pressure in the administration of intratracheal anesthesia.[3] This complication may be fatal.[16] Atelectasis, particularly when extensive and combined with inflammation[2] and coughing, is an important primary cause,[13,14] and its existence must always be looked upon as a threat of air invasion of the pulmonic vascular sheaths. Tendency to alveolar leakage would seem greater in some individuals than others, and may be inherited. Too sudden inflation of a lung at operation may precipitate a leakage. Probably the reason why this has not been more frequent in recent panpneumonectomies is because the opposite lung had already become slowly hyperinflated, giving time for protective compensatory alterations to occur; and the attending deflection of the entire blood stream has led to overfilling of the pulmonary blood vessels on the surviving side, with consequent counteraction of the tendency to form an adverse pressure gradient into the sheaths. These interstitial emphysemas, and their associated pneumothoraces, are never spontaneous; there is always an immediate exciting cause (though it may not be obvious) as well as a predisposing one.

Diagnosis.—Probably most cases of pulmonic interstitial emphysema and pneumomediastinum have gone undiagnosed in the past. There is no reason why this should continue. Now that the attention of clinicians has been called to this condition it should be frequently found. Roentgenograms, particularly oblique ones, are of aid. Prompt appropriate therapy may save many lives, especially in children.

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Carpal Bone Injuries

Conservative Treatment

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Harold W. Woughter, M.D.

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■ Our results achieved with the non-operative conservative form of treatment, suggests this report of ten cases of carpal bone injuries which have come to our attention during the past three years and emphasizes the bones most commonly injured—the navicular (scaphoid) and lunate (semilunar). Conditions for studying these cases have been ideal, i.e., frequent examination without inconvenience; ample x-ray studies without cost to the patient; observations of the work, and the accident which caused the injury.

Cause of Fractures.—The factors causing carpal bone injuries are well known. These bones are usually injured by direct or indirect violence. Fractures of the distal row of carpals and the pisiform are, as a rule, the result of direct violence, and the extent of the injury upon the severity of the violence. The navicular, lunate, and triquetrum (cuneiform) in that order of frequency, are most usually injured by indirect violence, such as sudden severe dorsiflexion caused by a fall on the outstretched hand, cranking an engine which suddenly backfires, or the kick of an electric wrench.

Navicular.—The navicular is by far the most commonly fractured carpal, probably because of its shape and the fact that it is the main buffer bone of the wrist and receives most of the force transmitted through it from the hand to the end of the radius which supports it on the proximal side. This fracture should therefore be given special consideration.

Lunate.—The lunate, next in importance as a buffer bone is supported by the medial edge of the radius, and the medial portion of the less resistant triangular fibro-cartilage, together with having the added support of the navicular and triquetrum on either side. Kienböck, in 1910, described a degenerate condition of the lunate formerly believed to be wholly traumatic in origin, but it has been attributed to occupational strain and/or to bacterial infection. Most authors freely admit that the original injury may be so slight as to result in relatively little disability at the time, but after a variable period of quiescence may appear again with all the symptoms of an initial injury. (See Cases 9 and 10.) A similar though much rarer condition of the navicular is known as Preiser's disease.

Triquetrum.—The triquetrum carries the least buffer action and may be fractured by indirect violence such as force transmitted from the hypothenar eminence, throwing the hand in ulnar deviation and dorsiflexion.

Diagnosis

Signs.—The initial signs and symptoms of carpal fractures caused by indirect violence are not usually severe, and are frequently misdiagnosed as sprains or strains. On inspection one may observe the patient carrying his forearm with the hand held in rigid pronation, and with variable or even no swelling over the dorsum of the hand and wrist. Palpation of the wrist may elicit tenderness centered over the injured carpal, without deformity. On manipulation the patient complains of increased pain on dorsiflexion of the hand and the motion is usually limited. When the navicular is involved difficulty in abduction may be noticed, contrary to triquetrum injury which inhibits adduction of the hand. In Kienböck's disease of the lunate, as well as fractures of that bone, Finsterer's sign* may be

*Finsterer's signs of fracture of the lunate: (1) Tenderness in the region of the lunate elicited by tapping on the knuckle of the third metacarpal bone of the closed fist. (2) Retraction of that knuckle—from vertical shortening of the lunate—in compression fracture.

present. Injuries by direct violence present signs and symptoms according to the severity and nature of the trauma.

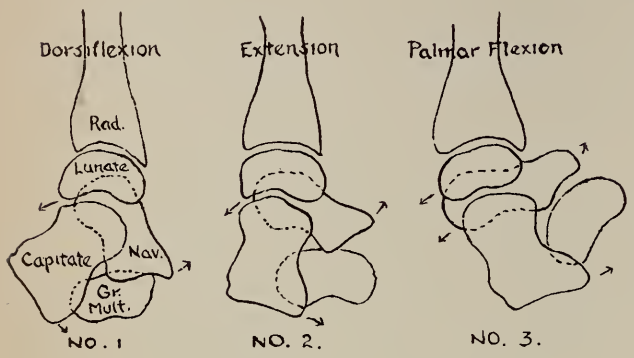


FIG. I

X-ray.—When there is any suspicion of fractured carpals the diagnosis should always be confirmed immediately with x-ray because the prognosis by treatment with a conservative method is in inverse proportion to the time elapsing between the time of injury and the institution of treatment. Because of the odd shapes of some of the bones, fracture lines are often missed, especially those of the triquetrum which may be obscured by the pisiform in the antero-posterior view and, by the navicular, lunate, and head of the capitate in the lateral view. For this reason we feel the importance of obtaining an oblique view altogether with the usual antero-posterior and the lateral positions.

Anatomy

A thorough knowledge of the physiopathology of the navicular and the lunate is highly desirable, the facts of which have guided our treatment.

When the hand is in dorsiflexion (Fig. 1, No. 1), the navicular is slightly inclined backward and upward, the lunate articulates with the center of the radial articular surface by its postero-superior surface, the capitate (os magnum) is inclined upward and its head articulates with the inferior part of the lunate and medially with the navicular.[2] The greater multangular (trapezium) which articulates with the metacarpal of the thumb also articulates with the distal portion of the navicular tuberosity. On increased abduction of the thumb or on pressure on the thenar eminence the greater multangular would be forced down causing greater pressure on the navicular accounting for pain in the wrist on abduction of the thumb.

On extension of the hand (Fig. 1, No. 2) the navicular assumes a more inclined position backward and upward, the lunate is horizontally placed and the capitate body is now almost perpendicular with the radius.

In palmar flexion (Fig. 1, No. 3) the navicular head rotates backward and more closely assumes a horizontal position with the articulating surface of the radius. The lunate still articulates well with the radius and the capitate is now in full perpendicular articulation with the lunate.

It may be seen that if the dorsal ligaments were removed to expose the back of the lunate, and without interference with any of the other ligamentous structures, on dorsiflexion of the hand the lunate bone would be seen to be "crowded out" by its neighbors which are firmly attached to the strong lateral ligaments so that it tends to spring forward. After removal of the dorsal ligaments it can be dislocated by comparatively little force on the palmar surface of the hand. While the dorsal ligaments remain intact it is kept in position, and is subject to stress between the head of the capitate and the unequal counter pressure exercised on its proximal aspect by the triangular fibrocartilage and the more resistant medial articular facet together with the edge of the inferior surface of the radius.[5]

Early Diagnosis.—In considering treatment let us again emphasize the importance of early recognition of the injury. Those cases which are diagnosed as sprains or strains and weeks later revealed through x-ray to be a fractured carpal often cause prolonged periods of pain and disability. followed by radical operations which may often be avoided. When the signs and symptoms or even the history is suggestive of possible carpal fracture x-ray examination should be imperative. The occasional negative plates obtained will be well compensated for by the discovery of a fracture, the potentialities of which were possibly minimized.

Treatment

Immediately upon the discovery of a fracture, a plaster cast is applied for at least six weeks with the hope that primary union will occur. A shorter period of time is felt to be entirely in-

adequate. This period of immobilization we feel to be necessary knowing that the navicular and triquetrum obtain their blood supply from their broad vascular lateral attachments where as the lunate lacks this advantage as well as being deprived of the regenerative power of periosteal tissue being mostly covered by articular cartilage. This may be a factor in accounting for some of the deformation and degeneration occurring in Kienböck's disease.

Position.—When enclosing in plaster it is preferred that the hand be held in a position of rest, that is, slight dorsiflexion with a few degrees radial deviation and the fingers assuming slight flexion. This is done because after the plaster is removed and the leather cuff applied, the hand is lowered to a position of extension with dorsiflexion limited to keep the hand within the range of comfort.

Extent of Cast.—The plaster is applied to include the proximal phalanges of the fingers, and the thumb (in cases of navicular fracture) to the distal phalangeal joint, to more securely immobilize the hand, and to keep the greater multangular from pressing upon the navicular tuberosity on abduction of the thumb. In injuries to the lunate bone, plaster is applied with the hand in extension to avoid the "crowding out" of the lunate which occurs on dorsiflexion. If the initial cast is applied when the wrist or hand is swollen it may be necessary to remove the cast and reapply before the six or more weeks of rest is complete. After the plaster is removed hydrotherapy and massage is instituted daily and a leather cuff is applied.

Subsequent Treatment.—Most authors suggest the use of a support of some kind following removal of plaster, but do not go into detail concerning just what to apply. We have a local shoemaker fashion a cuff to our design which is easily and inexpensively made. The dorsal half is made of stiff leather about 3/32-inch to 1/8-inch in thickness fashioned to extend from the metacarpal phalangeal joints of the fingers to about four inches proximal to styloid tip of the forearm. The volar half is made of soft leather with eyelets and tongue in place for lacing. The cuff is softened with water, applied to the wrist and allowed to dry assuming the anatomical shape of the wrist and hand. In cases of scaphoid fracture where pain is experienced on hyperabduction of the thumb, the cuff is fashioned with the stiff leather limiting the abduction by encroaching upon the base of the thumb. This appliance will allow slight dorsiflexion, some radial and ulnar deviation and free use of the fingers. The cuff is worn continuously for the first few weeks and then only while at work. Gradually and slowly the patient is allowed to dispense more and more with its use until finally it is not worn at all. This latter event is left more or less to the discretion of the patient.

Economic Loss.—The following cases lost only one and a half working days because of their injury. However, during the period in which the plaster was worn and also about the first week after the application of the cuff the patients were provided with work requiring the use of but one hand. Following this, they have been returned to their regular occupations.

Discussion

The conservative treatment of the ten cases by the method reported has demonstrated one poor, one fair and eight good clinical results. There were two cases with complications: one (Case 2-C.E.H.) which obtained complete union roentgenologically but continued to have pain from a ganglion, confusing the diagnosis of the symptoms until the ganglionic fluid was withdrawn and local symptoms disappeared. The other case (Case 5-S.B.) was complicated by reinjury to the wrist by marked dorsiflexion three months after the initial injury and a brachial plexus injury seventeen months after his initial fracture. These complications in the later case prolonged the period of treatment, but the end-result was clinically good. The one poor result demonstrates the inadequacy of shortened immobilization. The initial radiograph revealed the most satisfactory approximation of the fragments seen in any of the cases, and six weeks immobilization should have brought complete union. Only one week of adequate fixation proved entirely unsatisfactory.

The navicular fractures were supported in plaster in moderate dorsiflexion except the one old un-united navicular (Case 8-R.B.) the symptoms of which were relieved with the cuff alone.

The two cases of Kienböck's disease were re-

SUMMARY OF CASE REPORTS

Case	Date of Accident	Date Seen by Physician	Injury	Cause	Initial Treatment	Secondary Treatment	X-ray Result	Clinical Result	Remarks
1. P. McC. Age 29	2-6-35 1:30 A.M.	2-6-35 1:30 A.M.	Complete fracture through body of left navicular	Fell on outstretched hand	Plaster cast for 8 weeks	Hydrotherapy and massage for 2 weeks. Cuff for 7 weeks	Complete union in 6½ weeks	Good	
2. C. E. H. Age 37	3-17-34 6:30 A.M.	3-17-34 6:35 A.M.	Complete fracture through body of left navicular	Injured left hand between crankshaft and machine	Plaster cast for 8 weeks	Hydrotherapy and massage daily for 12 weeks. Cuff for 12 weeks	Complete union in 8 weeks.	Fair	Treatment was complicated by ganglion
3. O. C. D. Age 40	12-9-36 10:00 A.M.	12-9-36 10:05 A.M.	Complete fracture of left navicular with wide separation	Marked dorsiflexion of left hand	Plaster cast for 8 weeks	Hydrotherapy and massage daily for 5 weeks. Cuff for 8 weeks	Non-union	Good	
4. W. M. Age 28	3-8-37 4:40 P.M.	3-8-37 4:50 P.M.	Transverse fracture of right navicular	Fell on outstretched hand	Plaster cast for 5 weeks	Hydrotherapy and massage daily for 4 weeks. Cuff for 16 weeks	Non-union	Good	Cast removed in 5 weeks. Contrary to advice
5. S. B. Age 41	6-19-37 6:00 P.M.	6-19-37 6:05 P.M.	Transverse fracture of right navicular	Twist of wrist dorsally and radially	Plaster cast for 8 weeks	Hydrotherapy and massage for 2 weeks. Still wearing cuff periodically	Non-union	Good	Re-injured on 9-27-34, Brachial plexus injury 11-10-35
6. R. M. Age 29	8-3-37 4:25 P.M.	8-3-37 4:30 P.M.	Transverse fracture of left navicular	Fell dorsiflexing his left hand	Plaster cast for 7 weeks	Hydrotherapy and massage for 2 weeks. Cuff for 4 weeks	Non-union	Good	
7. E. D. S. Age 24	8-23-37 10:00 A.M.	8-23-37 11:25 A.M.	Transverse fracture of left navicular	Fell on outstretched hand	Plaster cast for 2 weeks	None	Non-union	Poor	Case left our care following day. Cast removed in 2 weeks contrary to instructions
8. R. B. Age 37	10-27-37 10:50 P.M.	10-27-37 11:00 P.M.	Old ununited fracture of left navicular	Fell on outstretched hand	Hydrotherapy and massage 6 days. Cuff for 3 weeks	None	Non-union	Good	
9. W. H. Age 29	2-18-37 10:30 A.M.	2-18-37 10:35 A.M.	Kienböck's disease	Fell, dorsiflexing right hand	Hydrotherapy and massage 2 weeks. Cuff 3 months	None	Kienböck's disease	Good	
10. R. T. Age 31	11-9-37 6:30 P.M.	11-9-37 6:35 P.M.	Kienböck's disease	Unusual strain on right wrist	Hydrotherapy and massage 10 days. Cuff while working	None	Kienböck's disease	Good	

lieved of local symptoms by the ordinary physiotherapy and the leather cuff.

Conclusions

1. Ten cases presented to show success of conservative treatment.
2. Early recognition of carpal fractures is imperative to issue a favorable prognosis.
3. X-ray studies should include views in three planes, antero-posterior, lateral and oblique.
4. Less than six weeks immobilization in plaster is entirely inadequate.

The leather cuff materially shortens the period of disability.

6. The final result should be evaluated by clinical findings and not by the roentgenograms.

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Cancer of the Uterus

A Plea for Adequate Irradiation

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■ FOR several years periodic health examinations have been advocated by the medical profession. Publicizing of this wide-spread movement has long been done and is being continued, particularly in connection with the campaign for "Prevention and Control of Cancer." Women are urged to investigate all abnormal functions —bleeding, discharge, enlargements, tumors, and painful lesions.

Gynecologists recognize the great importance of treating benign lesions of the female genital tract although there is a tendency on the part of some workers in the field to place insufficient stress on such lesions as cervicitis, erosions and eversions of the cervix, polyps, and caruncles. All benign lesions should be given early treatment. Neglected birth canal injuries, leukoplakia, persistent vaginitis and leukorrhea from any cause may lead to irritating abnormal conditions often ultimately resulting in malignant growths.

Diagnosis

The diagnosis of cancer of the genital tract is not always made as early as indicated. There may be no early symptoms of cancer of the cervix and for this reason it is usually a well-established disease when discovered. It is usually diagnosed by the appearance of vaginal discharge and bleeding, the two first-noticed signs. As soon as a suspicious ulcer or erosion appears on the cervix, a biopsy should be made. By using the biopsy knife or punch an adequate specimen may be removed which should include a liberal portion of tissue extending well into the cervical canal. A wise procedure, after biopsy, is electrical conization to completely remove the lesion. By this method there is always less chance of metastasis.

In abnormal uterine bleeding with no demonstrable cervical lesion, diagnostic dilatation and curettage should be done. The tissue should be curretted into potassium citrate solution flooding the vagina to prevent coagulation of blood and traumatizing of delicate tissue. Frozen section examination of tissues removed by biopsy and curettage may be made immediately and treatment instituted. Hysterography has been used to determine the presence of intra-uterine lesions —polyps, submucous fibroids and carcinoma. However, this diagnostic procedure may not always be advisable because of the possibility of masking other findings that might be more readily obtained by curettage.

After diagnosis of carcinoma, either of the body or cervix of the uterus, it is essential to ascertain the general condition of the patient. Presence of infection in the pelvis, either chronic or acute, contra-indicates the use of radium but not x-ray therapy. The presence of leukocytosis or hemoglobin less than 50 per cent is cause for delay in the use of radium in the treatment of carcinoma of the cervix or body. Conditions affecting the general health of the patient should be investigated and treated.

Treatment

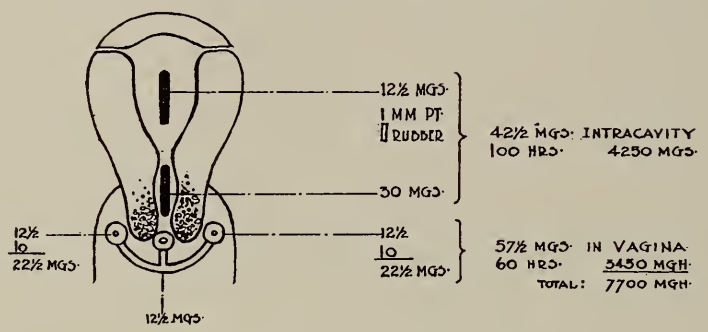
Previous irradiation may serve as a contra-indication to further radium treatment or to deep x-ray therapy. If possible, it is always considered good judgment to obtain treatment records or information from the radiologist who rendered previous treatment. In this way the case can be intelligently managed.

Example Case.—Female, age forty.—Carcinoma of Cervix, Grade II, Clinical.

I. *Radium*

1. Diagnosis established by biopsy—Histological grading.
2. Previous treatment.
3. General condition—presence of infection; temperature; leukocytosis; hemoglobin (not less than 50); red cells (not less than 3,000,000).

FIG. I.
CARCINOMA OF CERVIX



Surgery vs. Irradiation

Formerly, it was regarded good practice to perform surgery on a patient with either carcinoma of the body or cervix of the uterus. Foremost among those of this belief were: Wertheim, who advocated the radical abdominal extirpation of the combined cervix and body, including the parametrium; and Schauta, who favored the same operation by the vaginal route. Until the last two decades, particularly the last ten years, these two procedures were usually accepted as the ones most effective. Their effectiveness was indeed disappointing.

Today, statistics point to a greater number of cures of carcinoma of the cervix with irradiation than with surgery provided this includes all cases observed. In carcinoma of the body, irradiation and surgery together seem to have proven most efficient in cases where the malignant lesions have been completely eradicated. Gynecologists are agreed that the most important advancement in the treatment of carcinoma of the cervix is the shift from surgery to irradiation.

Technic of Irradiation

In order to exemplify the best modern treatment of carcinoma of the cervix by the use of radium and deep therapy, an example is given as follows:

4. Consideration of all factors involved indicate that combined radium and deep therapy x-ray is the best treatment.
5. Adequate dose of radium (3,500 to 8,000 or 9,000 mgh.) to be given by contact, properly filtered, in the cervical canal, cavity of the uterus and the vagina in close contact with the lateral fornices.

Unless there are contra-indications, a cleansing vaginal douche of 0.5 per cent lysol solution in water is given, or if preferred, an alkaline douche of 2 per cent soda bicarbonate solution. Depending upon the necessity of short nitrous oxide anesthesia to dilate the cervix, the patient is given pre-anesthetic preparation such as no breakfast, enema and sedation. In some cases, it is possible to accomplish the procedure by means of sedation alone, or by intensifying its effect with morphine. Most patients do much better and are less apprehensive if they are given a short anesthetic of nitrous oxide.

The vagina is wiped out with dry cotton sponges, the cervix and vaginal canal are painted with a mercurial antiseptic tincture, and the cervix carefully explored with a uterine sound. The depth of the uterus is next carefully ascertained with the sound. The cervix is next dilated and made ready for insertion of radium (capsules in tandem) filtered by 1 mm. of platinum, and rubber. The upper capsule contains 12.5 mgs., and the lower one 30 mgs., of radium.

When inserted the proper distance into the cervix the upper one should be situated in the cavity of the uterus and the lower one in the cervical canal.

Vaginal radium capsules are best applied by means of a colpostat. Each spool designed to be placed in the lateral fornices contains 22.5 mgs., and the one placed anterior to the cervix, 12.5 mgs. of radium. This makes a total of 42.5 mgs., in the cavities of the uterus and cervix, and 57.5 mgs., in the vagina. To obtain proper and adequate intracavity dose the radium should remain in the uterus and cervical canal for 100 hours, a dose of 4,250 mghs. The vaginal dose should remain for sixty hours, or 3,450 mghs. The total radium dose (uterus, cervix and vagina) is 7,700 mghs.

All procedures should be carried out with as little trauma as possible.

Gauze, saturated in 1 per cent solution neutral acriflavine and glycerine, should be packed around the colpostat to push the bladder well up behind the symphysis and the rectum posteriorly, as the tissues of these two organs are especially radiosensitive. The gauze and colpostat should be removed from the vagina each twenty-four hours and the latter cleansed and reinserted after a vaginal douche has been given. If at any time the patient's temperature rises above 101, or the white cell count rises unduly, treatment should be discontinued. The patient should be kept on a liquid or soft diet and remain in bed during the treatment. Contra-indications to continuing treatment are extreme irradiation sickness, unrelieved by intravenous administration of glucose solution, and intramuscular injections of liver extract. Recently, vitamin B and nicotinic acid have been used with more successful results.

FIG. II.

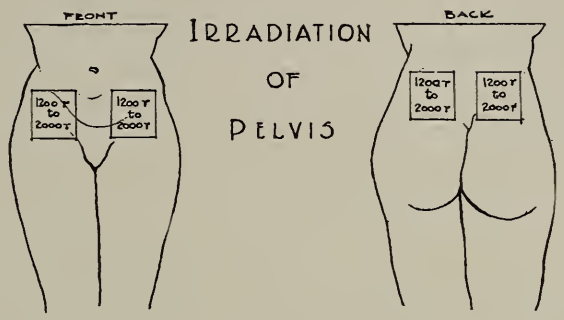
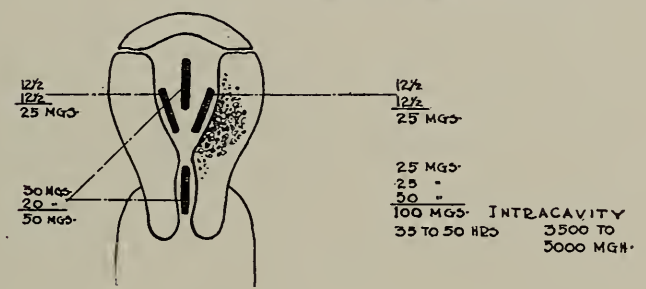


FIG. III.

CARCINOMA OF BODY



The effect on irradiated tissues should be observed at intervals. Normally, at the end of the first week there is hyperemia, and in two to three weeks sloughing occurs, usually followed in four weeks by healing. In all cases a certain amount of scar tissue results. Women, especially those of advanced years, should be warned that scarring may be so extensive as to cause shortening of the vagina. The effect of radium on cancer cells causes them to undergo disintegration and deterioration. To some extent normal tissues may also be affected.

X-ray Therapy

During the past few years, x-ray dosage has been increased in conjunction with larger radium doses in treatment of carcinoma of the cervix.

Today, adequate x-ray doses are those ranging from 6,000 to 12,000 and even 14,000 r. Greater depth doses are sought. It must be remembered that radium, when used in contact, penetrates effectively to a distance of less than five centimeters. Therefore, to reach areas into which the carcinoma may have extended, either by continuity or by metastasis, irradiation must be resorted to that will have greater depth dose and cover a larger field.

Deep therapy x-ray treatments may be begun quite safely ten to thirty days after treatment with radium, the average being about three weeks. At Butterworth Hospital the x-ray equipment consists of a 200 kv. and a 400 kv. machine. The use of deep therapy in the case of carcinoma of the cervix above treated with radium is as follows:

The 400 kv. machine dose is filtered through 6 mm. of copper. The dose is 150 to 200 r, to each field of 15 or 20 cm. square, treating two fields per day—one anterior right and one posterior left, alternating the fields with each treatment. Treatments are given daily except Sunday making a dose of 300 to 400 r per day. The total dose given is gauged by the toleration of the patient, the nature of the lesion and its location. Usually it ranges from 1,500 to 3,000 r per field, or a total of 6,000 to 12,000 r, the number of treatments thirty to forty, and the time required four to five weeks.

When irradiation sickness occurs it is treated, as previously stated, by vitamin B-1 or by liver extract, and glucose solution intravenously.

Carcinoma of the body of the uterus is treated by radium and deep therapy in a slightly different manner. After the case has presented itself for diagnosis it is usually advisable to decide upon two courses—irradiation or surgery, followed by deep therapy. There is some question in the minds of gynecologists which course is advisable but the majority favor irradiation first and then surgery. If the patient's condition indicates that surgery is permissible with reasonable assurance of recovery with the least possibility of recurrence, the order of treatment is reversed—surgery first and then irradiation. In most institutions, where statistics show the results are favorable, the rule is to proceed with deep therapy, as in carcinoma of the cervix, followed in four to six weeks with complete hysterectomy.

The most effective treatment of cancer of the uterus is that given by one especially trained in pelvic surgery, with the coöperation of a trained radiologist. Early diagnosis and proper treatment are essential. Inadequate treatment of uterine cancer is fatal.

Virus of Poliomyelitis*

Survival for over Six Months in the Feces of a Contact

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■ In view of the possible significance of the prolonged survival of the virus of poliomyelitis in human feces upon our concept of the mode of dissemination of the virus, we felt it of sufficient importance to report this unusual observation.

Source of Material

The feces was obtained from a twelve-month old infant (S.M.), one of a group of fifteen infants in a small institution in Detroit who had been exposed to five frank cases of poliomyelitis occurring in the same ward. The results of this contact study were reported recently.[1]

These five cases of poliomyelitis occurred between August 1 and 8, 1939, and as each was diagnosed the child was promptly removed from the institution to a local hospital. On August 4, 1939, this child (S.M.) presented a series of mild signs and symptoms for one day. These consisted of a fever of 103° F., anorexia, slightly red and sore throat, and the child appeared to have some difficulty in swallowing. That same evening the temperature subsided to 100.2° F. and the following day the temperature was normal and the child appeared quite well except for a poor appetite. The infant remained well for

*From the Bureau of Laboratories, Michigan Department of Health, Lansing, Michigan.
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RECOVERY OF THE VIRUS OF POLIOMYELITIS FROM STOOLS OF A TWELVE-MONTH OLD CONTACT (S.M.)

Specimen Collected	Date of Inoculation	Approximate Interval From Exposure* To Collection (Days)	Interval from Collection to Inoculation (Days)	Monkey Number	Outcome
8/10/39	8/12/39	9	2	5	Polio (4) †
8/29/39	9/ 2/39	28	4	45	Polio (2)
9/17/39	10/12/39	47	25	92	Polio (2)
11/22/39	12/ 9/39	113	17	110	Negative. Died peritonitis (1 day)
	12/20/39	113	28	55	Negative. Died pneumonia (33 days)
8/29/39 8/24/39‡ Pool	2/26/40	28 23	181 186	123	Polio (2)

*Assuming date of exposure to be August 1, 1939.
†Numeral refers to number of successful monkey passages.
‡Stool collected but not examined until February 26, 1940.

the remaining period of observation which was approximately three months.

Technic

The technic employed in the preparation of the stool specimens has previously been described.[2] Briefly this consisted of macerating the fecal material in distilled water, treating it with anesthetic ether for a variable period of time and finally freezing the supernatant of the fecal suspension and desiccating it in the frozen state with a Mudd-Flosdorf apparatus.

Collection of Stools.—The first specimen of stool from this child was collected on August 10, 1939. This specimen produced typical experimental poliomyelitis in Monkey No. 5 in nine days and the animal was sacrificed. This strain of virus was carried through four monkey passages yielding the typical experimental disease and characteristic histology in the cord.

A second specimen of stool was obtained on August 29, 1939 and, after preparation, was inocculated into Monkey No. 45 which developed flaccid paralysis of the right upper and right lower extremities on the eighteenth day and was sacrificed. The histology was perfectly typical of the experimental disease. This strain was carried through a second passage in Monkey No. 62 again yielding experimental poliomyelitis in ten days. Approximately twelve grams of this stool remained unused and was stored in the ice chest (3-4°C.). Another stool specimen collected on August 24, 1939, was not used and was stored in the ice chest with the remainder of the August 29 specimen.

A third specimen of stool was obtained September 17, prepared for inoculation, and inoculated into Monkey No. 92. On the tenth day this animal developed a tremor, flaccid paralysis of both lower extremities, weakness of both upper extremities, and was sacrificed. This strain was similarly carried through a second passage in Monkey No. 98 which on the twenty-second day developed flaccid paralysis of the left lower extremity, partial paralysis of the right lower extremity, and was sacrificed. The histologic examination of the cord showed typical pathologic changes.

A fourth specimen of stool which was obtained on November 22, 1939, was inoculated into Monkey No. 110. This animal died of peritonitis the following day. A second animal was inoculated eleven days later with this stool, the remainder of which had been stored in the ice chest. This animal presented no symptoms of poliomyelitis and died of pneumonia thirty-three days later.

Toward the end of February, 1940, over six months after the collection of the August 29 specimen of stool from this child, we had need of a fresh or recently isolated strain of virus and because of the relative infrequency of the disease at that season of the year we returned to the August 29, 1939, stool to see if we could again recover the virus from the remainder of the specimen. Because of the long period of time that had elapsed since the first recovery and because of insufficient fecal material remaining, we took 8.5 grams of this specimen and 6.5 grams of the fecal specimen obtained on August 24. After the usual preparation of this material for inoculation, Monkey No. 123 was inoculated February 26, 1940. On the fifteenth day this animal developed flaccid paralysis of both lower extremities and the histopathology was typical of the experimental disease. A suspension of the cord of this animal was inoculated into Monkey No. 126 on March 13. In fifteen days this animal developed a tremor, flaccid paralysis of the right lower extremity, a general systemic weakness, and was sacrificed. The histopathology of the cord of this animal was likewise typical of experimental poliomyelitis.

The series of examinations of the stools of this child are summarized in the accompanying table.

We have, of course, no way of knowing whether or not the August 24 specimen contained virus at

the time it was collected since no examination was made at that time. A reasonable inference may perhaps be made that this specimen contained virus because the specimen collected on the 29th (five days after this specimen) as well as the specimen collected August 10 (fourteen days before this specimen) both contained virus. Furthermore, a positive recovery, even if all the virus was contained in the August 29 stool alone, indicates a survival of 181 days from the time of collection of the specimen.

Discussion and Summary

Improvement in our technic for the recovery of poliomyelitis virus from extraneural sources has been a useful aid in epidemiologic studies. This has been particularly true in the detection of carriers, the existence of which had been predicated many times on the basis of other and indirect epidemiologic evidence. The significance of such carriers in the dissemination of the virus seems evident.

The survival of the virus in the stool at ice box temperature (3 to 5°C.) for a period of seventy-four days as reported by Trask, Vignec, and Paul[3] and for over six months in our own laboratories lends greater significance to the presence of the virus in the feces of healthy contacts or abortive cases; the same significance perhaps as does the survival of typhoid organisms under the same or natural conditions.

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GRAND TRAVERSE SUMMER CLINICAL MEETING

Sixty-two physicians were guests of the Grand Traverse-Leelanau-Benzie County Medical Society at their Annual Summer Clinical Meeting on August 1 and 2.

This super postgraduate session consisted of an afternoon and evening of lectures:

"A New Factor in Low Back Pain"—Dr. Carl E. Badgley, Ann Arbor; "Pathological Lesions of the Rectum and Colon and Their Treatment"—Dr. Frederick A. Coller; "Anemia of Pregnancy"—Dr. Cyrus C. Sturgis; "The Effect of Anemia of Pregnancy upon the New-Born Child"—Dr. Isaac A. Abt, Chicago; "A Résumé of the Modern Treatment of Burns" and motion pictures of "The Surgical Treatment of Pyloric Stenosis" and "The Use of the Miller-Abbott Tube"—Dr. Grover C. Penberthy, Detroit; "The Psychological and Neurological Effects of Modern Warfare"—Dr. Edgar A. Kahn, Ann Arbor.

The following morning was devoted to a wet clinic during which seven patients were operated upon by Drs. Coller and Penberthy.

Hyperactive Carotid Sinus Reflex*

Clinical Experiences

By Ben E. Goodrich, M.D.
Detroit, Michigan

Ben E. Goodrich, M.D.

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■ The carotid sinus reflex is one of the mechanisms of autonomic balance, the evaluation of which is frequently of clinical usefulness. Disturbances in the action of this reflex result in a variety of distressing disabilities. The recognition and demonstration of these abnormalities is often dramatic and the results of simple therapy have been very gratifying.

Clinical Experiences

Most publications have dealt with laboratory investigations of additional relationships or occasional unusual clinical problems and, a review of ordinary clinical experiences seems justified. Testing the sensitivity of the carotid sinus reflex is performed with the patient supine, head slightly thrown back and slightly turned. At a point just below the angle of the jaw it is usually possible to make pressure toward the spine and over the bifurcation of the carotid artery. In the majority of patients there will result a characteristic normal depressor response of a few seconds duration.

Probable Mechanism.—Weiss and associates,[10] in 1936, in a very extensive report, explained the probable mechanism of this reaction. Mechanical stimulation of the carotid sinus produces increased afferent impulses reaching the brain stem through the nerve of Hering. From these centers the efferents of the reflex are transferred through three main pathways.

1. Vagus—producing cardiac slowing.
2. Vasomotor depressor nerves—producing a peripheral vaso-dilatation and a fall in blood pressure.
3. Central motor pathways—producing cere-

*From the Department of Medicine—Henry Ford Hospital.

bral symptoms without bradycardia or a fall in peripheral blood pressure.

Effect of Stimulation.—Spontaneous or intentional stimulation of a hypersensitive carotid sinus results in powerful impulses producing marked

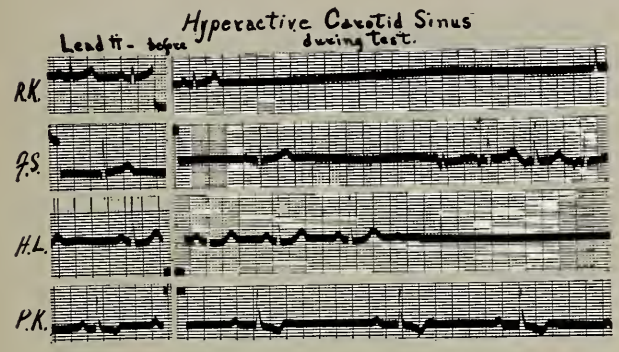


Fig. 1. Copies of lead II are shown as recorded before and during testing. (1) A period of asystole. (2) Tremor and abnormalities present in the electrocardiogram in the recovery period. (3) Abrupt asystole with no preceding bradycardia. The suddenness of this reaction is related to the severity of the symptoms. (4) An increase of the P. R. time indicative of delayed conduction.

objective and subjective reactions. Vagus efferents may produce bradycardia, dropped beats, or complete cardiac asystole of several seconds in duration. Gastro-intestinal irritability may occur. The fall in blood pressure and reduced heart rate lead to dizzyness, weakness, faintness and convulsions. Rarely cerebral symptoms alone may occur without bradycardia or a fall in blood pressure. Spontaneous attacks may thus occur with any increase in intracarotid pressure produced by excitement, exertion or change of position. External stimulation by a tight collar, singing or turning the head, may instigate an attack.

Case Studies

In a group of eighty-four individuals suffering disability suggesting a hyper-sensitive carotid sinus reflex it was possible to duplicate the attacks by pressure on the carotid bulb. Sensitivity varied, so that with some patients testing at additional visits was necessary in order to demonstrate the relation of the reflex to the symptoms. This reflex being an equalizer of sudden changes in the intra carotid pressure, produces in normal persons transient evidence of active function. Only in the degree of reaction rather than in kind are some persons abnormal. Of the eighty-four persons considered to have an over-active reflex sixty-five were men. This preponderance of males is usual.[8] The average age at onset of symptoms was fifty. At the time of examination the men averaged fifty-two years and the women sixty-one. Age range was from 14 to 75.

The entrance complaint varied greatly, ranging from a few transient dizzy sensations, to

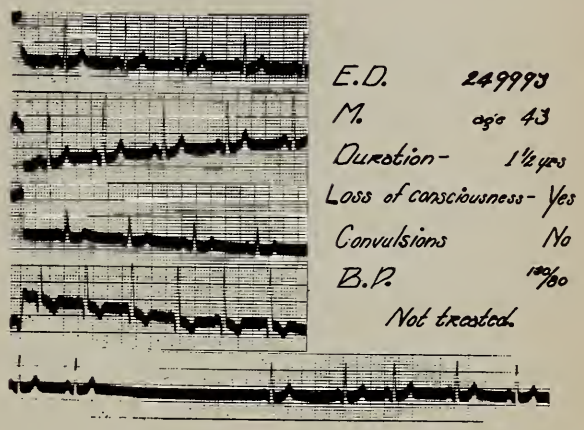


Fig. 2. This patient came to the hospital because of sudden weakness, oppression about the head and fear of death which developed while singing. Under test an abnormal degree of reaction was present bilaterally. Attacks recurring and developing while doing office work led to the administration of ephedrine amytal capsules with relief. When medication was omitted additional attacks occurred.

repeated attacks of syncope. Dyspnea, substernal pain, numbness and weakness occurred. Blindness, aphasia or aphonia were reported. Twenty-six had fallen, and 6 had been seriously injured. Fractures of the hip occurred in two. Automobile accidents resulted from the patients becoming unconscious while driving. Four patients had only gastro-intestinal effects although many had associated gastro-intestinal symptoms.

Forty-seven patients had been having attacks for longer than one year and one individual had been partially disabled for thirty years. Six had suffered spontaneous convulsions and five additional developed convulsive seizures while being tested. Two patients were incontinent in some attacks.

Physical Findings.—Earlier in this study the patients were exhaustively examined before a working diagnosis was made and treatment started. In addition to a physical examination, with blood count, Wassermann, and urinalysis, additional tests were carried out. These included blood sugar values, glucose tolerance tests, neurological examinations, lumbar punctures and x-rays of the sella turcica. With increasing ex-

perience such studies have been omitted except when indicated by features of the history or the physical findings. All patients had electrocardiographic records obtained. Arteriosclerosis was advanced in forty-six. A variety of associated diseases were present, none frequent enough to

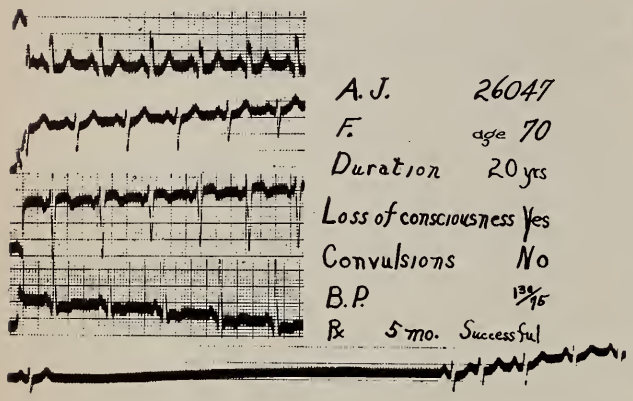


Fig. 3. This patient, handicapped for many years recently suffered more frequent attacks, some resulting in injury. The period of asystole was from a right sided test. The patient refused a trial on the left, as well she might after a six-second period of asystole. Since the tendency to hypersensitivity increases with age,[7] we believe the recognition of the origin of the attacks was a real help to this patient.

appear related. Twenty-five had hypertension and three hypotension. Five persons previously having had a coronary occlusion, suffered increased mental distress because of the fear of another attack. Many others thinking or having been told they were having heart attacks, likewise suffered added anxiety.

Electrocardiographs.—In carrying out clinical testing and reproducing the attacks forty-seven patients revealed cardiac asystole. The average duration was 3.4 seconds, with a maximum of over 8 seconds. Both right and left reflexes were hyperactive in twenty-five, the right side principally so in thirty-five, and the left in eleven.

Other than asystole the electrocardiogram during the test was altered in thirteen instances. Dropped beats, deformity of the Q.R.S. and other changes occurred.[6]

Treatment

Treatment consisted of advice leading to lessened spontaneous stimulation of the carotid sinusis, medication to decrease the vagus reactions, and medication intended to augment the activity of the sympathetic portion of the autonomic nervous system.

To decrease spontaneous stimulation patients were advised to avoid tight collars, abrupt motions, looking upward, singing and other activities leading to increased intracarotid pressure or to external mechanical stimulation.

Since the more frightening symptoms were usually the result of vagus effect, medication was

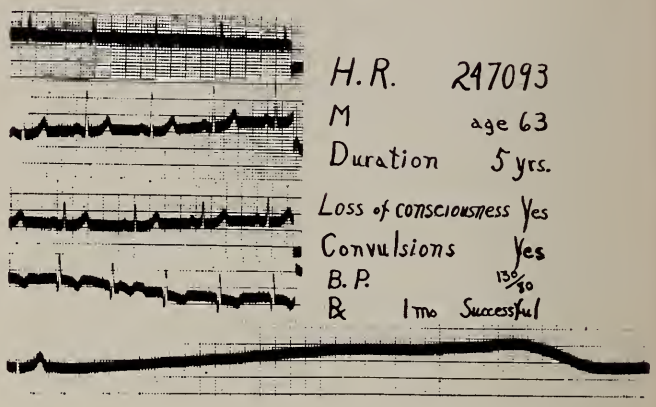


Fig. 4. This patient's problem was more complicated. Attacks occurred both awake and asleep. Arteriosclerosis was marked and neurological residuals of previous cerebral injury could be demonstrated. There were also gastro-intestinal symptoms and a deformity of the duodenal bulb was demonstrated by x-ray examination. The recorded asystole of eight seconds reproduced his symptoms. With medical treatment of his gastro-intestinal symptoms and of his hyperactive carotid sinus he was free of attacks for over one year and returned to work. Recently with increasing nervous tension related to his work there has occurred dizziness and a mild convulsion. This patient may represent the theoretically possible condition where the afferent impulse is not exaggerated, but where cerebral disease allows the production of an abnormal response.

given to decrease parasympathetic action. Atropine or synthetic related drugs were most commonly used for vagus inhibition. Tincture of belladonna, three doses daily, together with small doses of phenobarbital was usually given at the beginning of therapy. Substances known to increase parasympathetic action, such as digitalis, quinidine and medications productive of acidosis were excluded from the patient's intake.

Peripheral vaso-dilatation, with a fall in blood pressure, which occurred in some instances, warranted the use of sympathetic stimulation as a treatment measure. Adrenalin has such a brief action, unless injected with oil to delay absorption, that it is not feasible for self medication. Ephedrine sulfate was, however, frequently prescribed. In some instances benzedrine was given and appeared to be helpful. Paredrine[1,3] of the ephedrine group, has less tendency to produce insomnia, and has proven effective in postural hypotension.

Paredrine was not available as a medication for any of the patients in this group. Likewise neo-synephrine was not used but might be prescribed if results were not satisfactory.

Dessicated thyroid gland, representing a physiological sympathetic stimulant, was used in the majority of patients. When used successfully in an attempt to abolish symptoms, thyroid was continued until all other medication was discontinued. If no symptoms then recurred, continued thyroid medication depended upon evidences of thyroid need, judged independently of the carotid sinus activity.

Finally, demonstrating to the patient that the origin of the attacks was known and that they could be produced at will, was an effective measure leading to the restoration of confidence. Correction of undesirable habits and ways of living seemed equally important and in one instance resulted in the cessation of symptoms without any medication.

Results

Of the group of eighty-four patients, demonstrating an increased sensitivity of the carotid sinus reflex, fifty-three were treated. Of those treated, thirty-two were completely relieved, thirteen were satisfactorily relieved, in the sense that major handicap was avoided, five required continuous treatment, two were not relieved, both of these had severe cerebral damage and surgical denervation was not advised. One patient was advised surgical denervation which was performed on the right carotid sinus. Complete relief resulted and continued for one year. Since then symptoms have recurred and the patient refused further treatment.

Discussion

Hypersensitivity of the carotid sinus reflex becomes more frequent with advancing age and also in persons with arterial hypertension.[6] The symptoms are frequently considered heart attacks and digitalis is often prescribed. This drug further sensitizes the reflex and exaggerates the symptoms. Digitalis should not be given to these patients unless specific indications are present.

Unintentional pressure on the carotid sinus during operations may explain some of the attacks of collapse, hypotension and asystole that occur. In one instance such occurred in one of these patients during the removal of the gall bladder. In hyperthyroidism, where such stimulation might occur frequently, there is fortunately less than normal sensitivity of this reflex.

The effect of an induced attack is often a secondary reaction characterized by tachycardia and hypertension. In some patients the secondary reaction is at times more noticeable than the initial bradycardia and may obscure the diagnosis. In persons where the carotid sinus is less active than necessary, tachycardia and palpitation on sudden effort may be disabling. In such instances treatment to increase the sensitivity of the carotid sinus may control the symptoms. Symptoms and signs of decreased activity of this reflex may be bothersome for a few weeks following bilateral surgical dernervation of the carotid sinus. However, in all reported instances the tachycardia and hypertension following the operation have not persisted. Even though the carotid sinuses are completely dernervated the aortic nerves of similar action function effectively.

Conclusion

1. A hypersensitive carotid sinus may be productive of a variety of distressing symptoms in a patient of advancing years.
2. Electrocardiographic records indicate the vagal effect to be involved in the more dramatic symptoms.
3. Results of simple therapy have been satisfactory.

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KENT COUNTY MANUSCRIPTS

The Foster Welfare Foundation of Grand Rapids has announced the offering of prizes for medical papers by Kent County physicians. There will be three $100 cash prizes, one for each of the staffs of Blodgett Memorial Hospital, Butterworth Hospital and St. Mary's Hospital, respectively. This prize will be awarded to the author or authors of the best medical paper written by a member of the staff of the hospital. There will also be awarded a $100 grand prize to the best of the three winners. To be eligible the paper must be accepted for publication by either a national or a state medical journal during the year commencing May 1, 1940.

Chronic Sinus Disease

Biologic Factors

By R. Wallace Teed, M.D.
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■ The intensive research on physiology which followed the work of Claude Bernard and William Beaumont, did not, for some reason, extend to rhinology until about 1926. What research was done was ignored, and the practical implications lost sight of. Treatment of the nose, consequently, was largely empiric, and it is not surprising that many errors crept in. Many of these errors became official, moreover, and it will be many years before they can be eradicated. Nonetheless, it is apparent to many thoughtful writers that the time has arrived in rhinology at which physiologic thinking is starting to replace thinking along mechanical and surgical lines, and that at last, a beginning can be made in placing therapy on a rational basis.

In order to indicate those procedures which are rational and valuable, it is my desire to review briefly seven biologic factors relating to the nose, and to relate the meaning of each to the therapy of Chronic Sinus Disease.

First Line of Defense

The first of these factors is the function of the cilia. These active little whips were first seen in 1719, by Leeuwenhoek,[39] while looking at infusoria. He concluded that they were the motive mechanism of the organism. Similar observations were made by Baker,[2] Needham, Spallanzani,[78] and others. Cilia were first discovered in mammals and humans by Purkinje and Valentin[64] in 1834, just 106 years ago, Sharpey,[70] in 1835, noted that charcoal grains were carried forward on the inferior turbinate of rabbits, and in the maxillary sinus, toward the ostium. He described the motion as similar to that of a corn field in the wind. Electricity and galvanism, he found, had absolutely no effect. Bowditch,[4] in 1876, studied them carefully and computed that each ciliated cell in one minute performs work equal to lifting its own weight to a height of 4.2 meters.

They beat for some time after death, and Purkinje and Valentin[64] found them beating actively in a putrefying turtle, dead fifteen days. They are not stopped by cold, or prolonged contact with pus.[62] Streaming occurs in mucus, but not in serum.[47] The direction of streaming in the human is toward the pharynx, for the most part, and it has been estimated that a carbon particle could be carried from the most remote sinus to the nasopharynx in about thirty minutes.

St. Clair Thomson and Hewlett,[82] in 1895, found the healthy nose sterile, and concluded that this was due to the action of the cilia, and to the inhibitory action of the mucus film which ensnared organisms. If this one observation had received the attention it warranted, rhinology would not have lagged forty years behind other sciences.

In nature, the only enemy of the cilia is dessication.[62,63] They are remarkably resistant to radium and x-rays, and Heine[29] has shown that doses of twenty-four erythemas of x-rays do not stop their action. He believes that the fact that they are an ancient structure biologically accounts for their great vitality.

In spite of this great viability, experimental work[42,61] has shown that they can be easily paralyzed by many substances which have been used in the nose. Among these are all antiseptics, 1:1000 epinephrine, hypotonic and hypertonic saline solutions, cocaine in solutions of 5 per cent or more, and aromatics. Ciliary action stops when the pH of the medium bathing them is lowered to 6.4 or less, while it is vigorous at 8.5.[54(1)] Solutions of cocaine less than 2 per cent, ephedrine 3 per cent, and neo-synephrine have no harmful effect. Boyd[5] has recently pointed out that benzedrine and benzedrine sulphate are depressants, and 100 to 170 per cent more toxic to the cilia than neo-synephrine.

Animal experimentation has proven definitely that the cilia are the first line of defense against infection. Wenner[87] showed that it was very difficult, if not impossible, to infect the sinuses of animals unless the cilia had previously been paralyzed. Other factors in

the human are also operative, but it is obvious that in treatment, every effort should be made to preserve their integrity. From this point of view, the list of drugs which are safe to use in the nose is very small, and limited, practically, to the vasoconstrictors. Oils are undesirable, and in addition, may cause lipoid pneumonia. Antiseptics and aromatics have no place.

Since overuse leads to the production of tolerance on the part of the body, no drug should be used in the nose over any long period of time. Cocaine seems to lose its effect sooner than other drugs, and neosynephrine can usually be used longer than anything else. Ephedrine may produce a marked swelling of the mucosa on prolonged administration, which will subside only after removal of the drug. Solutions are probably best administered with a medicine dropper with the head in the Proetz position, or in the lateral head-low position of Parkinson.[57,58] One-half per cent ephredrine in saline or Ringer's Solution, used by Proetz displacement, exerts its action over a considerable period of time. If irrigations are used, one should employ Ringer's solution, but here also, care should be taken not to prolong this therapy. The advice frequently given in certain Health columns to irrigate the nose several times daily undoubtedly results in prolonging the disease in many cases. I have seen many of these improve merely by stopping the practice. Lillie[44,45] has warned of the edema that may follow repeated irrigations, particularly after surgery.

Any obstruction which causes either inability of the cilia to operate, or drying due to concentration of the air currents in one place, should be corrected as conservatively as possible. As little of the mucosa should be removed as possible, and care taken not to traumatize the rest.

Lysozyme

Lysozyme constitutes a second important biological factor. This remarkable enzyme was first described by Fleming[21] in 1922, altho a bacterial inhibiting substance in the nasal mucus had been recognized by St. Clair Thomson[52] in 1895. It is found not only in nasal, but also in intestinal mucus,[24] tears, saliva and body fluids, and has the power of lysis against many bacteria. It is most active against non-pathogens, but has been shown to have some activity against the Klebs-Loeffler Bacillus, B. Subtilis, and B. Anthracis,[33] and to cause Staphylococcus Aureus, Streptococcus Hemolyticus and Pneumococcus type III to grow in a granular manner, the latter also suffering some loss of virulence after exposure.[11] Hilding[30] observed a sharp reduction in lysozyme preceding and during the invasive stage of colds, while in the 12 hours prior to improvement, there was an increase in the lytic power of the secretions.

Theoretically, at least, there is on this basis an objection to the use of irrigations in the treatment of chronic sinus disease. It would appear desirable to retain all of the lysozyme that is present, and to allow it to act as long as it will. Irrigation likewise removes the protecting mucin so that bacteria can reach the ciliated cells more readily. In most cases, the nose cleanses itself fairly efficiently, and when this mechanism breaks down, tube or catheter suction would seem to be a more desirable method of removing collected secretions. Massive suction is dangerous, and should not be used.[25]

Nasal Respiration

A third biological factor of importance is that of nasal respiration. The primary function of the nose is to warm, humidify, filter and partially sterilize the air before it enters the lung. In warming the air, approximately 70,000 calories of heat per day are radiated by the nose, its temperature being thereby reduced to about 30°C. Proetz[63] suggests that the sinuses may act as insulators against cooling of the structures surrounding the nose. In humidifying the air, the nasal mucosa gives off about 1000 c.c. of water per day. This fluid is also of importance in maintaining the mucus sheet, and thereby the integrity of ciliary function.

The air exchange between the nose and the sinuses is very slow, about 1000 cycles being necessary to completely change the air in a sinus, or about one hour's time. For this reason, the sinal mucosa is very poor in glands, as compared with the middle turbinates. Consequently, if the turbinate be removed, and the ethmoid or sphenoid sinus opened, there results a direct blast of air upon a membrane poorly equipped to handle it. Drying occurs, with destruction of the cilia, and metaplasia of the columnar epithelium to a squamous type. Secretions are not removed,

and crusts form. The patient is not relieved, and concludes that "once a sinus, always a sinus." This process does not, of course, occur in operations on the antrum, since the opening is in the inferior meatus where little air passes. If the sphenoid must be opened, Proetz[63] suggests that it be done near the septum, so as not to disturb the normal ostium. The latter must be considered not as a mere opening, but as a functioning organ, and its work is seriously hampered when it is distorted and contracted by scar tissue.

McMurray[51] demonstrated that in quiet inspiration, there is a negative pressure of —2 to —8 mm. of water in the antrum. If there is an accessory ostium, this suction cannot obtain, and infection may result. The narrow deep infundibulum appears to act as a suction tube for the antrum, and should not be altered by surgery.

In the past, surgeons have treated a sinus infection on the same basis as a soft tissue abscess. The theory has been that if it were drained, it would clear up. This is partially, but not universally, true. The walls of a sinus do not collapse, as in a soft tissue abscess, and healing does not take place by obliteration, except in certain operations on the frontal. Membrane reforms, and may be infected, so that the discharge for which the patient first consulted the physician continues. Hence, it is clear that nasal surgery must be differentiated from general surgery, and adapted to physiological conditions which are unique to the nose.

Endocrine Influence

The relationship of the nose to the endocrine glands is the fourth biological factor in this discussion. Sinus disease can produce endocrinopathies, and vice versa.[9]

Mackenzie,[48] in 1884, first noted that there is hyperemia and edema of the nasal membranes during menstruation, with periodic epistaxis in some cases. Fliess[20] and others developed a technic for cocainizing or cauterizing certain "genital spots" in the nose to alleviate menstrual dysfunction. The enormous interest which this work aroused gradually died out, so that in recent years, little has been written about it. That there is still some interest in the work, however, is shown by a recent article[67] which reports the production of pseudo-pregnancy in rats by treating the nasal mucosa with silver nitrate. The rôle of the estrogenic substances in atrophic rhinitis has been carefully studied,[52, 53,91] and a characteristic pituitary defect demonstrated skiagraphically in many cases. Over half the males, and three quarters of the females studied showed clinical evidence of hypo-pituitarism. Treatment of 31 cases with estrogenic substances resulted in improvement in nearly all.

The relationship of the nose to the thyroid is quite definite. Carl Wencke has pointed out the marble-white appearance of the posterior end of the middle turbinate in hypo-thyroidism, and I have been able to make such a diagnosis in two cases on this finding alone. Acute infections frequently increase the production of thyroxin, while long continued chronic infections may depress thyroid function. My practice for some time has been to secure a basal metabolic determination in every case of chronic sinus disease in which there are symptoms of hypo-thyroidism, such as fatigue, lassitude, insomnia or dry skin. Many cases show a low rate, and are usually benefitted by small doses of thyroid extract.

Some writers have noted a relation between sinus disease and diabetes. It is well known that infections of all sorts may make diabetes worse, and Lierle and Potter[43] noted that juvenile diabetes is frequently discovered first during an acute sinusitis or tonsillitis. They noted, also, that chronic sinusitis and tonsillitis are very common in diabetic children, and recommended that measures to clear these conditions be included in the general management of the case.

Ruskin[69] has pointed out that loss of nucleoproteins from a continually discharging sinus mucosa produces a hyponucleinemia, at times associated with a nephrosis. The lymphoid tissue of the body undergoes hypertrophy in an attempt to make good part of this loss, and this enlargment, either before or after removal of tonsils and adenoids, should direct one's attention to the sinuses as a source of trouble. Nucleic acid or leukocytic extract may be given on a replacement basis.

Allergy

Allergy is one of the common causes of hyperplastic rhinitis and sinusitis, and the nasal smear may be an important item in the differential diagnosis.[27] Dean[13] states that an eosinophilia of 10 per cent or more in the smear indicates allergy. Polyps are practically always associated

with an allergy of some sort, and unless the underlying biological fault is corrected, surgical removal is a waste of time. Rowe[68] advises against the use of cauterization or ionization in nasal allergy, since relief is usually only temporary, and complicating sinus disease may result. The use of complicated, expensive machines is also illogical, since the same results can be secured with trichloracetic or chromic acid, the only effect of ionization being destruction of the mucosa.[50]

The practice of removing infected sinus mucosa in the treatment of bronchial asthma, has, I believe, largely been abandoned. Temporary relief may often be secured, but usually the patient lapses into the old, or worse, condition. In children, however, results are sometimes better, if the sinus disease can be eradicated.

Bacterial allergy is rather uncommon in children, but is a frequent finding in adults. Many of these patients will show no reaction to pollen or food proteins, or to stock bacterial antigens. If tested with autogenous cultures, however, many will show marked reactions. I have been testing with such materials during the past four years, and have found positive reactions in over 25 per cent of cases. If in a case of this sort, the patient is also sensitive to pollens, he can be given an oral preparation of pollen extract, or the two injections can be administered together.

Pathologic Physiology

The sixth biologic factor relates to pathologic physiology. Bacteria which enter the membrane as a result of ciliary stasis are rapidly carried into the deeper portions of the mucosa by the leukocytes and the lymph. Soon the whole membrane is filled with leukocytes and histiocytes, some of which travel either into the vessels or into the lumen of the sinus, or are transformed into fibroblasts. Moreover, organisms are also transported along the vascular lymphatics into the bone surrounding the sinuses.[26,55,59,60,83,84] It has been demonstrated clearly that the veins of the sinuses communicate with those of the bone.[73,92] Pickworth[60] made Gram stains of thin sections of the sphenoid bone in 200 cases, and found Gram-positive granules in 40 per cent. This tends to explain the work of Bull and Bailey,[6] who were not able to free the upper respiratory passages of rabbits of pathogenic organisms with any of the antiseptics in common use. Fox and Harned[23] removed sinus mucosa from 25 cases in which the washings were sterile, and observed bacteria on staining and on animal implantation in every case. Kistner[35] washed, ground, and cultured fresh mucosa from chronically infected sinuses, and observed streptococci in 90 per cent of 400 cases.

These facts, in conjunction with the knowledge that antiseptics are harmful to the cilia, should be sufficient to rule them out of the nose. In animal experimentation, Larsell and Fenton[38] found that the use of antiseptics actually delayed healing. Furthermore, to remove all infection surgically would require removal of all bone surrounding the sinus, which certainly would not be a desirable act.

The defense of the sinuses against infection is both humoral and cellular. The former involves anti-bacterial and antitoxic substances which are carried in the blood stream, and which form part of the general body defense against infection. The cellular reaction concerns chiefly the connective tissue cells, but polymorphonuclears, eosinophiles, plasma cells, lymphocytes, and histiocytes also play important rôles. The latter perform the chief phagocytic function of the nose, and have been observed[38,90] in the lymph channels of the sinuses, converging toward the ostia. Occasionally these channels become choked with cells, giving rise to local edema and mechanical obstruction. They have also been noted in the lymphatics leading away from the nose, and may thus carry the infection deeper into the tissues. The lymphatics from the turbinates have been traced into the tonsils, which appear to be the first lymph gland in the chain. This would suggest a nasal inspection in every case of tonsillitis.

As the acute sinusitis becomes chronic, the bacteria become less virulent, and the cellular reaction against them less effective. A working agreement is set up which results in a continued exudation of white blood cells, forming pus, and an uninterrupted multiplication of organisms. The problem, then, is (1) either to reduce bacterial mutiplication and make the organisms more susceptible to phagocytosis, or (2) to make the cellular activity more effective.

The former approach is utilized in acute streptococcus and pneumococcus infections by the use of sulphanilamide, which causes bacteriostasis, and enables the white cells to ingest them more easily. It can be given by mouth, or, as Childrey[8] has suggested, by Proetz displacement. No experimental evidence is as yet available as to the action of sulphanilamide or neo-prontosil on the cilia, but personal experience indicates that depression takes place, since the red color of neo-prontosil is often seen in the nasal discharge 3 or 4 days after use. However, it does seem to shorten convalescence in acute and subacute cases. It may also be used locally in chronic cases, but administration by mouth could hardly be advised.

To make the cellular activity more effective, two lines of approach have been suggested, namely, vaccines of various types, and x-ray.

Use of Vaccine.—Fenton[16] has shown that vaccines, particularly if given intradermally, produce an influx of histiocytes into the submucosa which resembles an acute process grafted upon a chronic one. Others have advocated undenatured bacterial antigens,[32,36,37,41] but in my experience, the reactions from this material have been very severe. Lindsay[46] and others used stock vaccine sprayed into the nose. Shea[71] and others have advised autogenous vaccines, particularly after surgery. Good results have been reported with a combination of Proetz washing and a stock vaccine made from local strains.[23(1)]

In my own experience, the pathogen-selective type of vaccine[75,76] has been the most satisfactory type of antigen. The organisms found in the cultures from the nose or sinuses are separated, and pure cultures grown. Intradermal tests are then made with the pure culture material, and the final vaccine made from the reacting organisms.

Cultures which show a reaction smaller than 1 cm. in diameter are discarded. Since this material is potent and specific, small doses should be used, an attempt being made to keep the local reaction within a 5 cm. range. If this range is exceeded, an actual depression of resistance may ensue. Certain authors have advised destruction of parts of the nasal mucosa by cautery or otherwise, on the ground that it provided an autogenous vaccine effect, but in my opinion, this is entirely illogical. One would hardly advise destruction of part of the iris in the treatment of an iritis. Fox and Harned[22] have suggested the use of hog nasal mucosa, on somewhat the same basis, but at present the data are too insufficient to warrant a conclusion.

X-ray.—The treatment of sinus disease by the Roentgen rays was first reported by Osmond in 1923.[56] Since then, favorable reports have been published.[7,31,49,65,74,77] The changes produced by the rays have been studied by Fenton and Larsell,[15,17,19] who found that small doses of the rays caused an early destruction of the lymphocytes, with a rapid migration of histiocytes in greater numbers than in the controls. As far as could be determined, no other detrimental structural changes occurred, and the cilia were intact. These observations are in accord with those of Heinecke in 1903, and of Warthin[86] in 1906, the latter noting that lymphocytes were destroyed within 15 minutes after exposure to the rays. Desjardins[14] believes that the antibodies, ferments, and other protective substances present in these cells are thus liberated, and available for action in the tissue spaces against bacteria. The mobilization of histiocytes is also stimulated. Scar tissue is resistant to the rays, as are polypi and cysts. Atrophic rhinitis has shown no response.

The best results are in those patients with symptoms over a long period of time, and who show thickened membrane in the sinuses. Reactions are present, but usually not severe. X-ray therapy will not prevent a recurrence, nor will it produce any further difficulty if surgery is indicated later. It is quite valuable in children, particularly those who show a lymphoid hyperplasia.

Kisch and Salmond[34] report prompt relief from postoperative pain following the use of x-ray.

Diathermy.—Other physical agents, such as diathermy and ultra-short wave currents probably act, according to Leichner and Schmidt,[40] by dilating the capillaries and thus promoting a greater volume flow of blood. Tebbutt[81] found

that diathermy caused a drop of about 1° F. in the temperature of the antrum, which he ascribed to evaporation of the increased secretion which followed the use of the current. These agents will undoubtedly find a place in therapy, but it is too early to appraise them with any accuracy as yet.

General Physiologic Factors

The seventh and last subject is the relation of general physiologic factors to the nose. The latter cannot be assumed to be an isolated unit, but is a functioning organ of the body, influencing the latter, as well as being influenced by it.

Chilling.—The first of these matters is that of chilling. It has been known for centuries that nasal disease followed exposure to low temperatures; indeed, the "cold" received its name from that association. It is only in recent times, however, that the mechanism for this has been understood. Mudd, Goldman and Grant[54] found that chilling of the body surface produced a drop in temperature of the nose of as much as 10° F., and Azzi[1] noted that the temperature of the nose and tonsils was reduced more than any other tissues of the body. Undritz and Sassossow[85] corroborated these findings, and stated that the drop in temperature was due to vascular constriction from stimulation of the sympathetic system. Spiesman[79] noted that after 10 minutes of chilling, the temperature usually rose again, but failed to attain the original level by .18 to .36° C. Taylor and Dyrenforth[80] have recently shown, in addition, that swimming leads to a lowered leukocyte response and impairment of phagocytosis.

It is therefore obvious that persons with chronic sinus disease should avoid chilling, in order to prevent an acute exacerbation. Swimming is usually hazardous, particularly if one remains in the water over a long period of time, or indulges in diving or underwater swimming.

Climate.—Patients often ask about climate in the treatment of this disease. Barnhill[3] states that there is no perfect climate, but that a good one is one in which the temperature over the 24-hour period is relatively constant. On this basis, Southern Florida, the Bahamas, and Bermuda would seem to qualify.

Diet.—The second general factor is that of diet. Many state that a proper diet should be prescribed along with other management, but that the diet itself cannot be considered curative [13,17,19,72] Fenton,[16,18] working on experimental sinus disease in cats, found no demonstrable effect from any special diet. Vitamines may aid in prevention, and it is suggested that the diet contain adequate amounts of milk, vegetable, fruit, eggs, and meat.[10,12,28].

Rest.—The third of these general relationships is that of rest. While rest alone is not curative, I do not believe that one can successfully treat chronic sinus disease without the active coöperation of the patient in this matter. Overwork, loss of sleep, and worry, will defeat any well-planned therapy. The amount of rest that any individual needs can only be determined by experience, and it is the function of the physician to assist in this determination.

The sinus mucosa appears to be one of the first tissues in the body to react to loss of rest. This is, in a sense, favorable, since sinus disease is not usually as important as heart or kidney disease, which may follow if the warning is not heeded. In this respect, sinus disease may be compared to pain, in that it suggests a fault in the physiological régime which should be corrected.

Conclusion

In conclusion, I should like to quote Proetz,[63] one of the prime movers in the development of physiologic rhinology, who said, "The ideal treatment is one which will supply the required ventilation and drainage, with the least possible damage to the physiologic processes of the nose." I am also in accord with Richards,[66] who concluded that some types of sinusitis could be cured by local or surgical therapy, but that many cases defy all these measures, and demand a thorough examination of underlying physical and biochemical disorders. Certainly the last word has not been spoken, but it is my opinion that further knowledge will be gained only by a more detailed study of the vital processes concerned.

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Lower Leg Fractures

Some Practical Considerations in Treatment

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■ *Immediate Treatment.*—The first principle in the treatment of lower leg fractures is that a fracture is an acute condition and should be treated as such. Just as one does not wait to operate until the next day in a case of acute appendicitis, so in a fresh fracture, treatment should be instituted at once.

By so doing, one avoids:

1. Troublesome swelling which interferes with accurate reduction and also with the application of a well-fitting cast.

2. Possible injuries to nerves and blood vessels.

3. Possible change of a simple fracture into a compound fracture by unwise moving of the patient.

Good Reduction.—The second principle of treatment is that a good reduction must be obtained. By this I do not mean that a one hundred per cent apposition of the bone ends is necessary, but that at least 50 per cent approximation be obtained, and then the position of the fragments checked by anterior-posterior and lateral roentgenograms. In fractures of the lower and upper ends of the tibia, most accurate reduction is desirable as we are here dealing with a fracture which involves the joint surfaces.

Secure Immobilization.—The third principle of treatment is that secure immobilization (without hyperextension) must be obtained. Except for those fractures which must be put in traction, a plaster cast is the ideal material for use in obtaining this secure immobilization. The use of board and wire splints is not practical except for emergency care, and when they are used as a permanent form of splinting, do not tend to give good results.

Prolonged Immobilization.—The fourth general principle is that prolonged immobilization until the fracture has healed must be maintained. One of the commonest causes of non-union is the removal of the support at too early a date before the fracture has firmly united. One should not be guided entirely by the roentgenograms in arriving at an opinion as to the amount of union, as by clinical examination, one is able to determine whether the time has arrived for the removal of the support. Tenderness on pressure at the fracture site is almost a sure sign that firm union has not occurred, and when this is found, further supportive measures must be used.

In some of the fractures of the shaft of the tibia, a support will at times be required for from six to twelve months, and considerable effort is necessary to keep up the morale of the patient. With the use of the Böhler walking iron, most of these patients can be made ambulatory and some may return to work so that long immobilization is not such an economic problem. The use of the walking iron also aids in the rapid healing of the fracture and does so

by the slight irritation of the bone ends and the stimulation of callous formation by the increase in the blood supply due to the action of the muscles in walking. It also aids greatly in the later care as when the limb is used, there is not the same tendency to stiffness of the enclosed joints.

Anesthesia.—There are many details of emergency care which will not be discussed, but as above stated, early attention is necessary. With regards to anesthesia, we have three types available:

1—Local infiltration with novocain solution.
2—Spinal anesthesia.
3—General anesthesia such as ether or gas-oxygen.

For many of the ankle fractures, local anesthesia is the best, but in the more severe type of fractures, I prefer spinal anesthesia.

Fractures of Lower Leg

It is important to verify our clinical findings by roentgenograms and in any fracture of the leg, the entire lower leg should be x-rayed. This is important as in torsion fractures of the lower end of the tibia, we usually find an accompanying fracture of the upper end of the fibula. This is one of the most frequently missed and should always be looked for.

I would like to divide the discussion into three parts, considering first fractures of the upper end of the tibia; secondly, fractures of the shaft; and thirdly, fractures about the ankle.

Upper End of Tibia

The commonest fracture of the upper end is that of the external condyle of the tibia. Also in this region, we have fractures of the internal condyle, and also of both condyles. This type of fracture and also where the upper end of the tibial shaft is involved, have been aptly called "Bumper" fractures. This refers to the manner in which the injury is obtained and is frequently caused by the leg being struck by a car bumper. It is of the utmost importance in this fracture to test the circulation as not uncommonly the posterior tibial artery is injured, and if so, channels for collateral anastomoses are not available and gangrene of the lower leg may occur.

Fractures of the external condyle may be either impacted or of an avulsion type. If impacted, we have abnormal mobility of the knee outwards, and if avulsion type, abnormal mobility of the leg inward. We also have another common type of injury known as the "T" fracture, the name denoting the lines of the fracture. Of course, the important consideration in this type of injury is the disturbance in the joint surface. Due to this fact, prognosis should always be guarded in this particular injury. As to treatment, if no displacement a simple plaster cast is all that is necessary. However, more often we find that traction to relieve the joint swelling and also to reduce the fracture is required.

There is considerable discussion as to the best method of treatment of a badly impacted fracture of the external condyle, but one thing is certain that elevation of the fragment is essential to avoid considerable pain in the knee and also to prevent some deformity.

At times a good reduction can be obtained by simple pressure over the fragment. At other times, the Cotton method such as striking a sharp blow with a mallet to bring the fragment up into position is successful. Many times, however, the fragment cannot be elevated, or if elevated cannot be held in position and for these, open operation with fixation of the fragment either with a nail or by elevating the fragment and placing bone chips beneath it is necessary. Following reduction a plaster cast extending from the toes to the groin is applied and kept in place about eight weeks. Following its removal, a walking caliper is applied but no weight bearing is allowed for about two months.

Avulsion of the tibial tubercle is a rather rare injury and must be distinguished from Osgood-Schlatter's disease. The treatment in this case calls for open operation and suture of the avulsed tubercle to the tibia.

Fractures of the Shaft

Fracture of the shaft of the tibia or of the shaft of the fibula alone is usually not difficult to deal with, as if only one of the bones is fractured, we have an excellent splint in the other bone. However, when we have both bones fractured, we are faced with a difficult problem. This type of fracture is at times most difficult to reduce, is difficult to hold in reduction, and in the lower third of the tibia we have a site at

which non-union frequently occurs. If the fragments can be satisfactorily reduced, a cast may be immediately applied. At times, however, it is necessary to supply some fixed point which will prevent slipping. This is most easily accomplished by inserting a Kirschner wire through the upper and lower ends of the tibia and then applying a well-fitted plaster cast. In certain types where the fracture is near the ankle, the wire is better drilled through the os calcis instead of through the lower end of the tibia. The wires are incorporated in the cast and prevent subsequent displacement of the fragments.

In many cases of fracture of both tibia and fibula, the bones cannot be reduced by manual traction and then it is necessary to resort to some method of securing either immediate or slow steady mechanical traction. In the first method, we have recourse to the splint popularized by Professor Böhler of Vienna. In the use of this method, we get steady immediate pull, and after checking the position of the fragments with the fluoroscope, a cast is applied. Böhler is particularly adept at using this method, and it was my privilege to see him reduce many in this manner. Unfortunately, however, as with many of the special devices, the method works well in only the hands of a few and is not for general use.

Special Appliances.—In this country we have other appliances, one of the best known being the Roger Anderson splint. I have used this method recently with very gratifying results. The most practical method that I have found is the placing of the injured extremity on a Braun splint and then securing traction by means of a Kirschner wire drilled as above mentioned through the os calcis or the lower end of the tibia. This can be done in the patient's room and under local anesthesia. Weights are then applied and the position of the fragments checked by x-ray in twenty-four hours. We can then be guided whether to add or take off some of the weights. As mentioned previously, it is most important to guard against over extension. At times if a good reduction is obtained, a plaster cast can then be applied in seven to ten days, incorporating the wire in the cast. However, most cases require a longer time in traction—that is until beginning callous formation. This takes from four to eight weeks and at the end of this period, a cast is applied extending from the toes to the groin. This is left in place for from four to six weeks more; and if the roentgenograms then show good callous formation, a walking caliper brace is made and guarded weight bearing commenced. It would be well to mention here that troublesome swelling of the ankle and leg may occur at first, and this can be largely prevented by the wearing of an elastic stocking, or better by the application of a Unna boot. I use it in practically all cases and find that the patient secures great comfort from its support to the tissues.

Skeletal Traction.—Here I would like to mention some of the practical points in the use of skeletal traction. Skeletal traction as the name denotes, is traction applied directly to the bone in contradistinction to traction of the soft tissue as is found in Buck's adhesive extension. We have three main methods of applying skeletal traction and these are:

1. The use of a Steinman pin. This was the method mainly used up to a few years ago and in certain instances is still the method of choice.
2. The use of calipers. Personally, I seldom use a caliper as I feel that one gets greater injury to the soft parts and also a greater chance of wound infection.
3. The third and which I feel is the most efficient, the most easily applied and the one from which the least complications arise, is the use of the Kirschner wire.

The development of this wire and its application has been one of the most helpful advances in the handling of difficult fractures of this type. The wire is drilled through the bone, and by using a wire stretcher, considerable weight may be applied. In the lower leg fractures, the point of insertion is usually one of the following:

(a) Through the upper end of the tibial shaft about two fingers breadth below its upper margin, or on a level with the lower margin of the head of the fibula.

(b) Through the lower end of the tibia, two fingers breadth above the ankle joint or three fingers breadth above the internal malleolus.

(c) Through the calcaneous one and one-half fingers breadth below and behind the malleoli.

With Kirschner wire traction, we have the advantages of being able to use all the weight that is necessary and in knowing that the traction cannot slip. This is a marked improve-

ment over the use of adhesive tape where we frequently have to reapply the traction and also get irritation of the skin.

In the occasional case, reduction cannot be obtained by any of the above means and open reduction is indicated. I believe the simplest form of retention is the best, and use as a rule, either a silver or rustless steel wire. Open reduction should not be used except as the last resort as there is always the danger of sepsis and a subsequent osteomyelitis. Also, it has been my experience that at times after open operation, healing may be delayed.

I will not discuss the question of non-union of the tibia except to mention that it does occur fairly frequently. In the operation for this condition, we have the choice of drilling multiple holes to stimulate callous formation, the use of a bone graft such as a sliding graft, or use of a Sherman bone plate.

Fractures About the Ankle

Fractures of the ankle are of frequent occurrence and are particularly serious injuries in that interference with the function of an important weight bearing joint often results. Practically all such fractures are caused by indirect violence such as marked external rotation, abduction, or adduction. In the practical consideration of these fractures, it is well to keep in mind that the ankle is supported by strong internal and external lateral ligaments and also due to ligamentous attachments that in most cases of fracture accompanied by dislocation, we find that the astragalus remains attached to the fibula and is displaced with it. This is important to remember when it comes to reduction of these cases with dislocation.

Types of ankle fractures are:

1. Fractures of the malleoli, either one or both.
2. Fractures involving the weight bearing surface of the tibia.

These include the fractures of either the posterior margin or anterior margin of the tibia, the former of which is the more common.

It cannot be stressed too much that in all injuries about the ankle that roentgenograms should be made. This must always include anterior-posterior, lateral, and at times oblique views to bring out some of the more uncommon lesions. This point is stressed because in cases where there is a posterior marginal fracture and the proper reduction is not made, we get marked disability of the ankle joint. Frequently, bimalleolar fracture is recognized and the lateral deformity is corrected but the posterior marginal fracture is not reduced and the posterior displacement of the foot is not corrected. This results in the lower articular surface of the tibia being displaced and this in turn causes the disability.

Ankle Mortise.—In the treatment of all ankle fractures, the main point is to restore the ankle mortise. Even a small displacement involving the joint surface will cause a painful ankle and at times some permanent disability. In ankle fractures a local or general anesthetic should be given, and with the knee flexed to relax the tendo-Achilles, manipulation is carried out. If fluoroscopic control during the manipulation is available, it will be a great aid. Reduction can usually be obtained quite readily and at times it will be necessary to hold the foot in some inversion although marked inversion is not desirable. For the uncomplicated fracture, anterior and posterior plaster molds or a circular plaster cast is applied. If a circular cast is applied, it may be necessary to bivalve it to avoid constriction of the circulation. In these cases, early weight bearing is desirable and this is best accomplished by incorporating a walking iron in the cast. With this means, the patient may begin walking in two to three days' time first with the use of crutches and later without any support. As mentioned previously, weight bearing shortens the healing time and results in less stiffness in the ankle joint when the cast is removed.

In the severe type of ankle fractures with comminution, it may be necessary to insert a Kirschner wire through the os calcis in order to secure good reduction. This is, however, seldom necessary in the ankle fractures, while in the fractures of the shaft, it is frequently required. I cannot stress too much the advisability of making the patient ambulatory as soon as possible with the use of a walking iron.

There are many problems in the treatment of fractures of the lower leg which have not been discussed, especially the problem of compound

fractures. In this discussion, however, I would like to emphasize two important points for your consideration:

1. The treatment of all fractures as emergencies and their immediate reduction and immobilization.
2. The importance of securing most exact reduction where the joint surfaces are involved.

Hydrorrhea Gravidarum

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■ Hydrorrhea gravidarum consists of the slow accumulation of a watery uterine secretion between the uterine mucosa externally and the chorionic and amniotic membranes internally. After the fourth month of pregnancy, when the decidua vera and reflexa have agglutinated to obliterate the uterine cavity this secretion becomes encysted therein. The time of appearance of the fluid externally will depend on the magnitude of the collection and on the distance it must burrow to gain the internal os.

Usually within a few days following the initial discharge, the fluid ceases to drain, and the accumulation begins anew only to break through again.

When the discharge takes place it is neither practicable nor possible to attempt to distinguish it from true rupture of the membranes and escape of amniotic fluid. The diagnosis is determined after several days when and if labor has not ensued.

The etiology of this interesting phenomenon is unknown. The hypothesis most commonly advanced is that hydrorrhea gravidarum is the aftermath of a chronic endometritis.

Case 1.—Mrs. C. B., a twenty-six year-old secundipara, was under observation from August 26, 1938 until March 3, 1939, at which time she was delivered of a normal full term, 8-pound male child. Her past history was entirely negative and her first pregnancy had been normal.

During this second pregnancy the patient had shown a total weight increase from 130 to 159 pounds. She was not abnormally large abdominally, and had been quite comfortable with the exception of a troublesome coccygodynia which was very satisfactorily relieved by per rectum massage of the coccygeus, levator ani, and pyriformis muscle groups. Urinalyses, blood pressure readings, blood Kahn and blood counts were consistently normal.

On January 2, 1939, her husband reported that she had sustained the sudden painless discharge of an estimated pint of urine-like, slightly blood-tinged fluid. She had been on her feet busily engaged in the usual household tasks at the time. When seen by the author the patient was comfortably in bed and the discharge had ceased. Examination, abdominally and rectally, revealed no evidence of impending active labor and she readily passed a normal quantity of urine on request. After several days of enforced bed rest, throughout which she reported no further watery escape, she was allowed to be up and about, but her active participation in the household tasks was restricted.

On February 12 an episode in every particular similar to the one described was reënacted. After several days of bed rest the patient was again allowed up, and from this point on there was no further escape of fluid until the onset of active labor on March 3. The membranes were mechanically ruptured before the completion of the first stage of labor which was entirely normal. The postpartum period was completely uneventful.

Case 2.—Mrs. C. S., a seventeen-year-old primipara, had been under prenatal observation since August, 1938. Pregnancy had been normal. Repeated urinalyses, blood pressure readings, blood Kahn test and hemoglobin estimations, were normal. Her weight ranged from 136, before conception, to 163 pounds two weeks before delivery. The abdomen was not abnormally large and the birth weight of the child was 5¾ pounds.

On the evening of January 20, 1938, I was informed by telephone that the bag of waters had broken. Examination revealed a soft painless abdomen, floating head, small cervix (per rectum) not dilated, and the painless discharge, vaginally, of blood-tinged fluid. There had been no vaginal discharge of any kind previous to this time. Labor did not ensue and the trickling discharge of faintly blood-tinged fluid continued until February 22, 1938, when active labor began.

In the hospital it was discovered that the bag of waters was intact and was ruptured artificially before the completion of the first stage. Labor was terminated by a deep midline episiotomy and a low forceps application. The postpartum period was entirely normal. It is interesting to observe that the child had a left talipes equino-varus deformity of very mild degree, which responded readily to manipulative and retentive-overcorrection management.

Conclusion

The author's experience with two cases of undoubted hydrorrhea gravidarum occurring within the same month has led him to believe that this report was of sufficient interest and value to merit publication.

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Iodide Content of Iodized Salt*

Effect of Storage

By D. Murray Cowie, M.D., and
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■ Previous reported results indicated no appreciable loss of iodide in iodized salt after storing the packages for six months.[1] A further study was necessary to determine the effect of storing iodized salt for a longer period of time.

The iodide content of eight packages of iodized salt was determined.. The top of each package was replaced and sealed with adhesive tape. These packages were then placed in a box and stored on top of a cabinet in a dry laboratory. (The room temperature varied from approximately 65 to 75 degrees Fahrenheit).

Sixteen months later the cartons of salt were removed, thoroughly shaken and the percentage of iodide was determined (Table I).

There was a definite decrease of iodide in the salt of every package. This loss of iodide in the salt varied from 32 to 54 per cent.

Eight other packages of iodized salt were analyzed and stored under similar conditions for six months. A repeated analysis showed no appreciable loss of iodide in the salt (Table II).

TABLE I. LOSS OF IODIDE IN IODIZED SALT AFTER SIXTEEN MONTHS OF STORAGE

Carton Number	Percentage of Iodide Content		Percentage of Loss
	Sept. 1938	Jan. 1940	
1	.018	.012	33
2	.017	.011	35
3	.020	.012	40
4	.016	.010	38
5	.019	.013	32
6	.023	.011	52
7	.013	.006	54
8	.016	.010	38
Average Iodide Content	.0178	.0106	

These eight cartons represent seven different brands of Iodized Salt. (Number 1 and 8 were the same brand.)

TABLE II. IODIDE CONTENT OF IODIZED SALT AFTER SIX MONTHS OF STORAGE

Sample Number	Percentage of Iodide in Salt		Percentage of Variation
	Oct. 12, 1939	Apr. 26, 1940	
66	.020	.019	—.001
67	.021	.021	0
68	.018	.018	0
69	.020	.018	—.002
70	.020	.018	—.002
71	.019	.019	0
72	.022	.021	—.001
73	.021	.021	0

These packages were of the same brand.

Summary

A study of the iodide content of iodized salt shows that:

1. There was no appreciable loss of iodide from the salt of eight packages that had been stored for six months.

2. However, after sixteen months of storage the iodide content of the salt of eight other packages showed a marked decrease, varying from 32 to 54 per cent.

Reference

1. Cowie, D. M., and Engelfried, J. J.: A survey of the iodized salt obtained on the open market from various districts of the State of Michigan, 1939. Jour. Mich. State Med. Soc., (Dec.) 1939.

*Report No. 5 for the Iodized Salt Committee of the Pediatric Section of the Michigan State Medical Society. From the Department of Pediatrics and Infectious Diseases, University of Michigan Hospital.

The Iodized Table Salt Carton*

Analysis of the Iodide Content of the Pasteboard

By D. Murray Cowie, M.D., and
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■ Previous studies have demonstrated that the iodide content of iodized salt was less than the amount stated on the package label.[1] In attempt to determine where this loss may have occurred the carton materials were analyzed for iodide content. Forty-four packages of iodized table salt were obtained in various localities representing a fair cross section of the state. The date of packing was not known.

An analysis of the forty-four pasteboard containers demonstrated various amounts of iodide in thirty-five cartons and no detectable iodide in nine. Of the thirty-five cartons containing iodide, seven contained less than 10 per cent of the total iodide content of the package, twenty-eight contained from 10 to 55 per cent of the total iodide content (Table I). (An analysis of twenty-three non-iodized salt cartons showed no trace of iodide.)

*Report No. 5 for the Iodized Salt Committee of the Pediatric Section of the Michigan State Medical Society. From the Department of Pediatrics and Infectious Diseases, University of Michigan Hospital.

TABLE I. PERCENTAGE OF IODIDE IN THE PASTEBOARD OF FORTY-FOUR CARTONS OF IODIZED SALT

Carton Number	Manufacturer	Brand	Type of Carton	Total Amount of Iodide (Milligrams)				
				Claimed	Found in Salt	In Pasteboard	Total	% in Carton
2	A	1	Round	170	96	52	148	35.1
9	A	1	Round	170	148	18	166	10.8
33	A	1	Round	170	148	21	169	12.4
28	A	2	Oblong	157	82	27	109	24.8
11	B	3	Round	148*	148	16	164	9.8
13	B	3	Round	148*	163	0	163	0
5	B	3	Round	148*	115	26	141	18.4
23	B	3	Round	148*	140	0	140	0
48	B	3	Round	148*	148	69	217	31.8
19	B	4	Round	148*	162	0	162	0
29	B	5	Oblong	136	136	7	143	4.9
15	C	6	Round	170	148	28	176	16.0
20	C	6	Round	170	133	0	133	0
6	C	6	Round	170	109	20	129	15.5
30	C	6	Round	170	118	0	118	0
34	C	6	Round	170	170	10	180	5.6
32	D	7	Round	182	91	113	204	55.4
10	?	8	Round	209	454	28	482	5.8
12	?	9	Round	170	148	28	176	15.9
26	?	9	Round	170	162	0	162	0
14	?	10	Round	209	191	37	228	16.2
17	?	11	Round	209	318	31	349	8.9
18	?	12	Round	182*	136	36	172	20.9
21	?	13	Round	182	191	22	213	10.3
22	?	14	Round	182	145	8	152	5.3
24	?	15	Round	182*	218	0	218	0
25	?	15	Round	182	172	0	172	0
27	?	16	Oblong	157	177	35	212	16.5
31	?	17	Round	209	182	84	266	31.6
35	?	18	Round	182	136	11	147	7.5
1	E	19	Round	170	112	38	150	25.3
8	E	19	Oblong	209	100	114	215	53.0
3	?	9	Round	170	112	18	130	13.8
4	?	11	Round	209	115	35	150	23.3
7	F	20	Oblong	209	82	71	153	46.4
36	?	21	Round	209	100	55	155	35.5
37	?	22	Round	209	109	22	131	16.8
39	?	23	Round	209	118	22	140	15.7
40	?	24	Round	209	118	92	210	43.8
41	?	25	Round	182	127	0	127	0
42	?	26	Oblong	314	218	66	284	23.2
45	?	29	Round	209	209	25	234	10.7
46	?	30	Round	209	163	47	210	22.4
47	?	31	Round	170	89	30	119	25.2

*The labels on cartons 5, 11, 13, 18, 19, 23, 24, and 48 claimed "about the amount of potassium iodide" stated in this table.

TABLE II. IODIDE CONTENT OF IODIZED SALT CARTONS

(Empty Cartons Collected from Various Homes)

Carton Number	Manufacturer	Brand	Total Amount of Iodide in Pasteboard
60	B	3	0
95	B	3	0
61	C	6	4 mg.
90	C	6	23
93	C	6	0
94	C	6	0
88	?	9	19 mg.
92	?	11	14
86	?	32	45
91	?	33	49

Type of carton—all round cartons

Showing that iodide is present in the pasteboard of some salt cartons after they are discarded by the housewife.

To determine the iodide content of the pasteboard carton of packages used in the home, ten empty iodized table salt cartons were collected from the kitchens of six homes. Six of these cartons contained from 4 to 49 milligrams of iodide; in four cartons no detectable iodide was found (Table II).

TABLE III. DISTRIBUTION OF IODIDE IN THE LAYERS OF PASTEBOARD OF THE IODIZED SALT CARTON

Carton Number	Type of Carton	Iodide Content	
		Outer Layer	Inner Layer
17	Round	0	31 mg.
18	Round	0	36
27*	Oblong	0	35
28*	Oblong	0	27
29	Oblong	0	7
31	Round	0	84
32	Round	0	113
36	Round	0	55
39	Round	0	7
40	Round	0	92
45	Round	0	25
46	Round	0	47

*All cartons except 27 and 28 were made with a black adhesive plastic lining between the two layers of pasteboard. To all analyses this black lining was included with the inner layer of pasteboard.

Showing that the inner layer of pasteboard (in contact with the salt) contains the iodide.

To determine the iodide content of the different layers of the pasteboard carton of iodized salt packages, ten cartons were separated into their two layers—an inner layer of pasteboard with a black adhesive plastic lining and an outer layer. The inner layer contained all of the iodide found in the pasteboard carton while the outer layer did not contain any detectable trace of iodide.

Summary

An analysis of the pasteboard of the iodized salt container, after removal of the salt demonstrates that iodide may be present.

1. The pasteboard of thirty-five cartons contained from 7 to 114 milligrams of iodide. No iodide was found in nine.

2. Six of ten empty iodized salt cartons (collected from the kitchens of six different homes) contained from 4 to 49 milligrams of iodide. In four no iodide was found.

3. The inner layer of pasteboard of ten cartons contained iodide; while no iodide was found in the outer layer.

Reference

1. Cowie, D. M., and Engelfried, J. J.: A survey of the iodized salt obtained on the open market from various districts of the State of Michigan, 1939. Jour. Mich. State Med. Soc., (Dec.) 1939.

Meckel's Diverticulum*

Invagination

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■ Recent reports from the literature seem to indicate that increasing numbers of cases of Meckel's diverticulum are being seen by both physicians and surgeons and the proper clinical criteria for the correct diagnosis of the congenital pathologic entity is gradually being brought to light so that the medical profession as a whole will think of this condition in the differential diagnosis of Melena associated with acute abdominal pain.

Case Report

The patient, a young man, twenty-five years of age, presented himself with the following complaints: bleed-

*Presented before the staff meeting of St. Mary's Hospital, Marquette, Michigan, March 3, 1938.

ing from the bowel over a period of ten days, associated with right lower quadrant pain of the same duration, and periodic generalized abdominal cramps for the last two years. The patient stated that he was apparently well up to about one year ago when he had a severe hemorrhage from the bowel for which he was hospitalized. The hemorrhage at that time was associated with an intensification of his abdominal cramps which had been bothering him for the year previous. He was discharged from the hospital after six weeks of medical management with subsequent cessation of the bleeding but there was residual tenderness and colicy pains still present at the time of his discharge. The patient was apparently well up to about two weeks before he presented himself for examination with the above complaints. He stated that he first noticed a generalized abdominal pain which seemed to originate in the peri-umbilical region and would radiate to the right lower quadrant. The pain itself was of the intermittent type and progressive in intensity subsiding after reaching an apex, and shortly thereafter he would notice a desire to move his bowels and there would be bright red blood in the stool. The interval between the pains would vary from fifteen minutes to three or four hours; they were somewhat increased after meals and in the interim the patient would be quite comfortable and could pursue his occupation which was that of a bartender. He stated that the amount of blood in the stool had increased since the onset of the pains until now the entire stool appeared all bright red blood.

Past History.—Careful inquiry concerning a peptic ulcer or selective food dyspepsia history produced negative findings. During his previous hospitalization there was never any epigastric distress or pain. No history of allergy was obtainable. No history of carcinoma or polypoid disease in the family was noted. An older brother had been treated for pyloric obstruction due to a peptic ulcer.

Physical Examination.—Physical examination revealed a well developed white male, twenty-five years of age, subacutely ill, weighing 190 pounds, rather well-built and considering the amount of bleeding from the bowel, apparently not very anemic. Blood pressure 120/80; pulse 100; respiration 22; red blood cells 3,500,000; white blood cells 9,000 with a normal differential; hemoglobin 70 per cent. Urine negative. Physical examination revealed a slight distention of the abdomen with diffuse lower abdominal pain which was greater in the right lower quadrant. No masses were palpable and auscultation revealed a moderate borborygmy and a metallic tinkle, which was intermittent, especially over the right lower quadrant. Proctoscopic examination of the rectum and sigmoid did not reveal any bleeding points or masses and no ulcerative lesions were present.

Roentgenologic Examination.—The roentgenologic examination of the gastro-intestinal tract revealed normal emptying of the stomach; no niches or masses were discernable; the duodenum and the small intestine were essentially negative. The region of the ileocecal area showed moderated distension of the small bowel with an associated distention of the cecum. Under the fluoroscope palpation elicited pain over the observed area. The barium enema showed no filling defects in the colon and the ileocecal area. The distention in this area was conspicuous and there was some difficulty of the barium entering the ileum. No filling defects or string signs were noted.



Fig. 1. Specimen of the intestine and attached diverticulum. Note evaginated collar which still shows much puckering after the diverticulum was everted.

Treatment.—While the patient was under observation he passed bloody stools which at times alternated with tarry stools. The clinical impression was that we were dealing with a bleeding mass at some midpoint in the gastro-intestinal tract and since the fluoroscopy pointed to the ileocecal area, the clinical impression of a bleeding Meckel's diverticulum or a bleeding solitary polyp was indicated.

The patient was given 1 minim of moccasin snake venom which was increased daily by 2 minims until he received 1 c.c. At the site of the injection there was a slight local reaction of an ecchymotic nature which gradually subsided after the patient received 7 minims of the moccasin snake venom preparation. After the third day there was a gradual subsidence of the bleeding from the bowel which by the eighth day had completely ceased. The abdominal tenderness disappeared and the patient felt quite relieved; he was given a soft diet and discharged from the hospital after the twelfth day The patient was advised to return

for a weekly check-up. The right lower quadrant tenderness was still present and on deep palpation a diffuse indurated area was felt in the region of the cecum. The stools were periodically tarry in nature, however, the patient was more or less comfortable. An exploratory operation was performed three weeks after the onset of the symptoms.

Operation.—A right rectus incision was made and the ileocecal region was explored. There was an isoperistaltic intussusception of the ileum extending up to the ileocecal junction. The intussusception was reduced easily. An elongated mass about 2½ inches long was present within the lumen of the bowel about 50 centimeters from the ileocecal junction. The serosa of the ileum at this point showed a puckering which was continuous with the mass within the ileum. The puckering was slightly dilated and invagination of the serosa was ascertainable. Because of the firm fibrotic collar it was impossible to reduce the invagination and that the diagnosis of invaginated Meckel's diverticulum was established. An aseptic resection was done with a Rankin clamp and the continuity of the gastro-intestinal tract was reëstablished by an end-to-end anastomosis.

Postoperative Course.—Postoperatively, the patient ran an uneventful course, and was quite comfortable, except for an irritation due to the Levine tube which was of the red rubber type and caused a slight irritation of the naso-pharynx. The patient was discharged on the twelfth day, and there have been no further complaints referrable to the gastro-intestinal tract.

Pathologic Report.—University Hospital, Ann Arbor, Michigan, Specimen 6373-LAP. The mucosa of the diverticulum is of small intestinal type. No gastric mucosa found. Severe chronic productive inflammation of the wall without necrosis. Localized chronic productive peritonitis.

Discussion

Embryology.—Meckel's diverticulum or diverticulum ilei represents the remains of the vitelline or omphalo-mesenteric duct, the duct of communication between the umbilical vesicle and the alimentary canal in early fetal life.

Anatomy.—Meckel's diverticulum is usually found connected with the lower part of the ileum on an average of about three feet from its termination, and is a blind diverticulum or pouch varying in length but averaging about two inches, and being about the same diameter as the piece of intestine of which it is part. Sometimes only a portion of the proximal end is open and the balance of the structure is obliterated and shrunk to a fibrous core. It is usually at a right angle to the intestine, but may take almost any direction and may have a mesentery. The diverticulum is attached to and communicates with the lumen of the bowel by one extremity and the other is unattached or may be connected with the abdominal wall or with some other portion of the intestine by a fibrous band.

Dixon, Deuterman and Weber[1] in an exhaustive review of diverticula of the intestine both acquired and congenital, state that only 1.5% of acquired intestinal diverticula occur in the ileum, and that most ideal diverticula are congenital. It is thought that Meckel's diverticulum is present in 2 per cent of all individuals. De J. Pemberton and Stalker[2] state that Meckel's diverticulum is a developmental anomaly of the intestinal tract which affects about 2 per cent of the population, with males predominating in a ratio of 2:1. The majority of persons who have the anomaly undoubtedly go through life without symptoms from it There occurs, however, in approximately one-fourth of all cases of Meckel's diverticulum, some pathologic change, such as an inflammatory process, a mechanical disturbance, development of heterotopic tissue, or development of a tumor; they state that cases of Meckel's diverticulum can be classified in three groups, namely: (1) cases in which there are no symptoms or signs present. (2) cases in which there are symptoms and signs of intestinal obstruction. (3) cases in which symptoms and signs of intestinal bleeding are present.

This case combines the features of part 2 and part 3 of their classification. The intestinal obstruction symptoms that were observed in the aforementioned case were due to an invagination of a Meckel's diverticulum, which was of such a nature as to cause a valvular periodic intestinal obstruction and associated with this phenomena there was present an intussusception of the ileum over the valvular obstruction and associated with the obstructive symptoms there was frank bleeding from the diverticulum.

Case,[3] Pfahler,[4] and Prevot[5] have been able to demonstrate the presence of Meckel's diverticulum roentgenologically provided the pouch was patent enough to admit the contrast medium.

Gibson[6] states that intermittent hemorrhage from the gastro-intestinal tract associated with the presence of tarry stools and occasionally with fresh bleeding suggests that the hemorrhage is neither high up in the small bowel nor near the rectum but at some intermediate point, as-

suming that the bleeding is coming from a single focus. He also calls attention to the fact that a Meckel's diverticulum may be the starting point of an intussusception.

The presence of gastric mucosa in the diverticulum is occasionally seen and symptoms referrable to peptic ulcer are not uncommon; De Marchi[7] states that the structure of the diverticulum is usually like that of the normal intestine. Variations may consist of an absence of the muscularis or of greater importance, pieces of mucosa which have a structure exactly like the gastric peptic mucosa. The presence of the peptic-like mucosa is important because a peptic ulcer may develop. The explanation of the presence of this peptic mucosa inclusion is not clear, however, some investigators believe its origin is embryonic and others believe that it is metaplastic. The author states that the pathologic lesions of the diverticulum include peptic ulcer, acute and chronic inflammations, herniations, fistulas, tumors, calculæ, typhoidal perforations, tuberculosis, trauma, and torsions.

McKechnie[8] and Priestley report a case of intestinal obstruction from intussusception of Meckel's diverticulum. Exploratory operation was performed on a man forty years of age and the small intestine was found to be hypertrophied and distended. A diverticulum 7 centimeters long was present in the terminal ileum and it caused intussusception and obstruction of the bowel. However, they do not state whether or not the invaginated diverticulum was long enough to cause a valvular obstruction.

Intussusception of the bowel in adults is characterized by the symptoms of an acute intestinal obstruction and may be due to intestinal polyps and benign tumors having pedunculated bases which serve as a fulcrum for the beginning of the intussusception; in contrast the mechanism of intussusception in children is usually due to an elongation of the mesenteric attachment of the bowel with local disturbances of the intestinal gradient (dyskenesia) with a resultant change in the amplitude of the peristaltic contraction so that there is a sucking in of the proximal portion of the adjacent structures in a sleeve-like mechanism known as an intussusception.

Intussusception in adults may possess some of the etiological factors present in children but, as a rule, the condition in the former is usually due to a pedunculative interlumenal mass which, by its mere presence, interferes with normal peristaltic waves, and with any dyskinesia locally, the mass serves as a starting point for an intussusception. Therefore, we have both in adults and in children a disturbance of the autonomic nervous system associated with some organic factors, whether internal or external, to the lumen of the bowel causing similar disturbances but in different age groups.

Valvular intestinal obstruction is characterized clinically by symptoms of acute or subacute obstruction alternating with a symptomless phase during which time the patient is quite comfortable and the signs of obstruction are absent. The valvular mechanism is dependent upon some interlumenal mass which, due to changes in position, size and shape, causes partial or complete obliteration of the alimentary channel of which it is a part. In most cases the mobility of the interlumenal mass prohibits the obstructive symptoms but when the mass becomes fixed and is not freely floating in the lumen of the bowel obstructive symptoms are present which recede when the mass is freed again.

Summary

Herewith is reported a case of an invagination of a Meckel's diverticulum giving rise to the syndrome of a valvular intestinal obstruction. Associated with the valvular intestinal obstruction was an intussusception of the ileum which further complicated the clinical picture, but seems to bear out the opinions of various clinicians that intussusception in the adult is usually due to an interlumenal pedunculated mass which interferes with the normal intestinal gradient and gives rise to disturbances of motility which may form a sleeve-like mechanism.

Conclusion

1. Meckel's diverticulum is a developmental anomaly of the intestinal tract which affects about 2 per cent of the population.

2. In approximately one-fourth of all cases of Meckel's diverticulum some pathologic change occurs.

3. Intermittent hemorrhage from the gastrointestinal tract associated with the presence of tarry stools and occasionally with fresh bleeding suggests that the hemorrhage is neither high up

(Continued on page 805)

EDITORIAL

This editorial page, reproduced with the kind permission of the Rocky Mountain Medical Journal, the official publication for the state medical societies of Colorado, Utah and Wyoming, should be of intense interest to all medical men.

Rocky Mountain Medical Journal
Colorado
Utah
Wyoming
SEPTEMBER
1940

Editorial

No Ifs, No Ands, No Buts or Howevers!

BEFORE you read these perhaps unnecessary words, you will have seen and read the accompanying photographic reproduction of a letter that deserves a prominent place in current medical history Never before in the memory of the Editors of this Journal has either a President of the United States or a candidate for that office issued such an unequivocal statement of his position on a medical policy.

As President of the American Urological Association, Dr. T. Leon Howard of Denver obtained an interview with Mr. Willkie, while the latter was enjoying his pre-campaign vacation in Colorado Springs, in the hope of receiving some encouraging word to take to the Urological Association from the Presidential candidate. Not only was the interview wholly satisfactory to all specialties and groups in the medical profession, but Mr. Willkie at once wrote the letter here reproduced, and gave Dr. Howard full permission to reproduce it in "any way you see fit."

An identical space in the October issue of this journal will be made available to Mr. Roosevelt should he care to use it, and this will be called to his attention.

The records of 1938, its "Amendment No. 2" in Colorado, its "Measure No. 2" in California, and similar attacks upon medicine and public health in other states, should be carefully reviewed by all candidates for public office, from the lowest to the highest. **They may well recall that the medical profession, when genuinely aroused, wields political power whose limit has yet to be defined.**

WENDELL L. WILLKIE
109 EAST 42ND STREET
NEW YORK CITY

Colorado Springs
August 7, 1940

My dear Doctor -

You have asked my views on socialized medicine. I am against it. You can quote me any place on this.

Cordially yours,

Wendell Willkie

Dr. T. Leon Howard
Denver, Colorado.

President's Page

TO OUR TASKS

THE most important function of the President of the Michigan State Medical Society is the appointment of committees. With an ever-enlarging scope of activities and the need for sustained effort in medical and civic affairs, the Michigan State Medical Society must look to its committee workers who now become a very integral and important part of organized medicine.

Appointment to any committee of our Society entails considerable sacrifice of time, effort and expense. It is a responsibility which every appointee has assumed with a most commendable spirit.

The committee organization of the Michigan State Medical Society is so developed as to provide the greatest possible efficiency in coördination of effort and realization of worthy objectives. Every plan and project of the Society is filtered through some committee and finally acted upon by The Council or its Executive Committee.

As the President, I have called upon 136 men to help run the affairs of our very progressive medical society, a quasi-public institution whose influence and prestige has increased mightily in the last decade. I have retained many committeemen who have served in the past, and have added other men who I know will bring new thoughts and ideas to the many fine programs so well sustained by previous committees.

The success of the Michigan State Medical Society depends upon the committeemen. To your tasks, gentlemen, for the good of your profession and those whom you serve!

Gratefully but humbly, I assume the Presidency of the Michigan State Medical Society with thanks to all for this high honor. I beseech your continued help, your interest and unified team work during my tenure of office.



President, Michigan State Medical Society.

MICHIGAN MEDICAL SERVICE

THE report of the operation of Michigan Medical Service has been presented to the first annual meeting of the members of the corporation. This contains many items which are a source of real gratification to the doctors of medicine in Michigan who have made possible the inauguration of this professionally controlled medical service plan.

During the first six months, services were provided for more than 3,000 subscribers, with payments to participating doctors amounting to $125,000. The reception given by the public to the doctors' medical service plan is indicated by the enrollment of 67,449 subscribers in all parts of the State (as of August 29).

One out of every eight doctors in Michigan has received payments through Michigan Medical Service for services to subscribers—an average payment of $108.40 for each doctor. Monthly payments to individual doctors have ranged from $2.00 for a single office visit to the largest payment of $762. Doctors who have received payments are located in 57 out of the 83 counties in Michigan. Payments to doctors have been made according to the full Schedule of Benefits which is equivalent to the prevailing charge now made for patients in the income group enrolled in Michigan Medical Service. No advances from the Michigan State Medical Society have been received since February, 1940.

Coöperation of Doctors

A steadily increasing number of doctors of medicine in Michigan are indicating their willingness to coöperate in the operation of the medical service plan by completing their Application for Registration with Michigan Medical Service. In six months, the registration has jumped from 2,697 to 3,243 physicians.

Every doctor of medicine is urged to complete an Application for Registration with the medical service plan sponsored by the Michigan State Medical Society.

Send Reports Promptly

Doctors who are rendering services to subscribers should send their Monthly Service Reports to Michigan Medical Service *not later than the end of each month in order that payments can be made promptly.* Even though a case may not be completed on the last day of the month, physicians are urged to render a bill for service to date, and thus receive more prompt payment. Likewise, the work of the Medical Advisory Board in authorizing payments will be facilitated if the doctor will indicate the nature of any special service, such as the extent of lacerations sutured, the location and size of tumors and cysts removed, the particular type of operation performed, or the kind of x-ray.

MICHIGAN MEDICAL SERVICE
REGISTRATION HONOR ROLL
(As of September 10, 1940)

100 Per Cent

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Mason

90 to 99 Per Cent

Manistee
Menominee
Newaygo

80 to 89 Per Cent

Allegan
Bay-Arenac-Iosco-Gladwin
Chippewa-Mackinac
Calhoun
Clinton
Delta-Schoolcraft
Dickinson-Iron
Gratiot-Isabella-Clare
Hillsdale
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MEDICAL RELIEF CHAOTIC!

The administration of medical relief to those on Welfare is in a very chaotic condition in Michigan at the present time. The State Society and its Legislative Committee labored unceasingly in the Legislature of 1939 to establish the cardinal principle of the physician-patient relationship. The recent M.S.M.S. survey on Medical Welfare in Michigan (published in the August Journal) brings out the fact that the law is being evaded in this respect in a number of counties. Moreover, criticism from the politicians of some counties is jeopardizing the satisfactory and law-abiding contracts which some nine or ten county medical societies have with their County Social Welfare Boards. In recent weeks, the State Social Welfare Commission, after a great deal of pressure, has matched the salaries of physicians who are working full-time supplying medical relief to welfare patients in clinics and dispensaries. In other words, full-time county physicians are gradually eliminating the family physician-patient relationship or free choice of doctor for which the State Society battled six months last year. This objectionable condition will increase and multiply—unless the county medical societies stand up for the letter and spirit of Act No. 280—the Welfare Law of 1939. This is a serious situation which can be rectified only by *instant action* by the medical profession in those counties where the law is being evaded.

THANKS

The Council of the Michigan State Medical Society has placed on its minutes a vote of thanks to all who contributed to the extraordinary success of the State Society's Diamond Jubilee. The Council is grateful to the guest-essayists, the officers of the Society, the chairmen and secretaries of the Sections, the efficient Press Relations Committee, the Daily Fellowship Committee, the Detroit Committee on Arrangements, the exhibitors, the radio stations of Detroit, the Woman's Auxiliary, the newspapers for many columns, the Detroit Convention and Tourist Bureau, our friends who sponsored lectures, the management of the Detroit Golf Club, the Wayne County Medical Society Players, Glee Club, String Quintet and all who made the MSMS Smoker such an enjoyable affair, and not the least to all the members who by the hundreds left their busy practices to visit Detroit and attend the Seventy-fifth Convention of the Michigan State Medical Society.

After three-quarters of a Century of Medical Progress, the medical profession of Michigan still marches on!

MEMBERSHIP AT ALL TIME HIGH

The membership of the Michigan State Medical Society, as of September 23, 1940, stood at 4,436 members, the greatest total in the history of the Michigan State Medical Society.

Members in good standing as of July 31 and as of December 31 for the years 1935 to 1940 inclusive are indicated on the following charts:

	1940	1939	1938	1937	1936	1935
As of July 31..	4,401	4,255	3,958	3,757	3,457	3,410
As of Dec. 31...		4,425	4,205	3,963	3,725	3,653

The prophecy that the State Society will have a membership of 4,500 by the end of 1940 may be fulfilled!

M.S.M.S. FELLOWSHIP IN POST-GRADUATE EDUCATION

Announcement was made at the Diamond Jubilee of the Michigan State Medical Society that 149 members of the Society were eligible to receive Certificates of Associate Fellowship in Postgraduate Education. These Certificates, to be mailed to Fellows during October, are awarded to physicians who have completed certain specified postgraduate medical education sponsored by the Postgraduate Committee of the Michigan State Medical Society.

The following State Society members were honored with Certificates in 1940:

Uriah M. Adams, Marcellus; Alfred L. Aldrich, Ithaca.

George M. Baker, Parma; Henry F. Balconi, Jackson; O. Fenton Banting, Richmond; Roy H. Baribeau, Battle Creek; Helen S. Barnard, Muskegon; Charles M. Baskerville, Mt. Pleasant; George Bates, Kingston; Theodore I. Bauer, Lansing; Keith F. Bennett, Kalamazoo; Perry S. Black, Detroit; Paul W.

Bloxsom, Grand Rapids; John E. Bolender, Grand Rapids; Robert M. Bradley, Flint.

Archibald M. Campbell, Lansing; Earl I. Carr, Lansing; Ward L. Chadwick, Grand Rapids; Herman M. Chesluk, Detroit; William P. Chester, Detroit; Edward A. Christie, Cheboygan; Joseph W. Christie, Pontiac; William R. Chynoweth, Battle Creek; Wilbert B. Clark, Saginaw; Randall M. Cooley, Jackson; Ezra L. Covey, Honor.

Carroll Stoll Davenport, Lansing; Robert H. Denham, Grand Rapids; Bernard Dickstein, Grand Rapids; Frank Diskin, Muskegon; Frank L. Doran, Grand Rapids; Bernard J. Dowd, Kalamazoo; Charles R. Doyle, Lansing; James Casper Droste, Grand Rapids; Don H. Duffie, Central Lake.

Cecil W. Ely, Saginaw; John A. Engels, Richmond.

Michael Faber, Benton Harbor; Carl G. Fahndrich, Battle Creek; Charles Edward Farber, Grand Rapids; Robert A. Farrier, Ludington; Kenneth E. Fellows, Grand Rapids.

Dugald A. Galbraith, Lansing; Laslo Galdonyi, Detroit; Cyrus B. Gardner, Lansing; James W. Gauntlett, Traverse City; Martha H. Goltz, Montague; Saul S. Gorne, Flint; Harry Greenbaum, Jackson; Glenn Grieve, Big Rapids; Harold F. Grover, Flint.

Lloyd C. Hart, Lansing; Theodore F. Heavenrich, Port Huron; J. Bates Henderson, Pigeon; Ruth Herrick, Grand Rapids; Albert B. Hodgman, Kalamazoo; Theodore E. Hoffman, Vassar; John W. Holcomb, Grand Rapids; Augustus Holm, LeRoy; Jack Hoogerhyde, Grand Rapids; Willard H. Howard, Galesburg; Louis Hromadko, Detroit; William Barrington Hubbard, Flint; Reader J. Hubbell, Kalamazoo; Wellington B. Huntley, Jackson; Mathias S. Hurth, Lansing.

Robert G. Janes, Marquette; Ralph S. Jiroch, Saginaw.

Solomon S. Keller, Saginaw; James M. Kennary, Detroit; Leo A. H. Knoll, Ann Arbor; John F. Konopa, Manistee; Arthur H. Kretchmar, Flint.

George F. Lamb, Grand Rapids; William W. Lathrop, Jackson; Jesse L. Leach, Flint; George L. Leslie, Howell; Ernest M. Ling, Hemlock; Ezra Lipkin, Detroit; George E. Loupee, Dowagiac; Sherman L. Loupee, Dowagiac.

James H. McCall, Lake City; Frank T. McCormick, Detroit; R. Bruce Macduff, Flint; Nelson K. McElmurry, Perry; Omer G. McFarland, North Adams; Burton G. McGarry, Fenton; Robert J. McGillicuddy, Lansing; Edwin D. MacKinnon, Saginaw; James W. McMeekin, Saginaw; Joseph C. MacPhail, Bay City; Clifford B. Mandeville, Muskegon; Joseph P. Markey, Saginaw; Leo L. Marston, Lakeview; Martin A. Martzowka, Roscommon; William P. Martzowka, Saginaw; Reuben Maurits, Grand Rapids; Ernest B. Miller, Manistee; Perry Lynford Miller, Adrian; Robert E. Mills, Boon; Morris J. Mintz, Greenville; Arthur H. Mollman, Grand Rapids; Frank L. Morris, Cass City; Albert P. Murphy, Saginaw.

Mervyn M. Nickels, Traverse City.

Bernard Patmos, Adrian; Charles A. Paukstis, Ludington; Matthew Peelen, Kalamazoo; Abraham L. Pott, Grand Rapids; Frank F. Pray, Jackson.

Octavius M. Randall, Lansing; Orill Reichard, Flint; Granville M. Riley, Gobles; Colin G. Robertson, Sandusky; Ernest F. Rondot, Sherman City; Wima Weeks-Rorich, Battle Creek; Annie Stevens Rundell, Vassar.

Alexander Wolf Sanders, Detroit; Donald V. Sargent, Saginaw; John A. Scott, Jackson; John P. Sheldon, Sturgis; Hollis L. Sigler, Howell; Earl M. Slagh, Elsie; Matthew R. Slattery, Bay City; Benjamin F. Sniderman, Flint; Charles E. Snyder, Swartz Creek; Charles J. Socall, Detroit; Carl O. Sonnemann, St. Joseph; Perry C. Spencer, Lansing; Harry F. Stamos, Detroit; Bernard H. Starmann, Cass City; George J. Sweetland, Constantine.

Archibald B. Thompson, Grand Rapids; Henry E. Thompson, Detroit.

Jerrian VanDellen, Ellsworth; Henry J. Van Duine, Byron Center; Daniel Van Woerkom, Grand Rapids; Jack A. Vatz, Pontiac; Stanley H. Vegors, Sault Ste. Marie.

Royal W. Walters, Battle Creek; Nellie M. Ward, Flint; Henry C. Wass, St. Clair; Morris D. Wertenberger, Jackson; John W. Wholihan, Michigan Center; Harold W. Wiley, Lansing; Gordon L. Willoughby, Flint; James Joy Woods, Ypsilanti; Melissa H. Worth, Ypsilanti.

August K. Zinn, Battle Creek.

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

POLIOMYELITIS INCREASE

Following rather scattered reports of poliomyelitis during July when only 28 cases were recorded, a sudden spurt in the incidence of the disease during the last half of August jumped the case reports to 303 for that month. The sudden rise in cases this year was in contrast to the usual gradual increase which has prevailed in previous outbreaks and caused Michigan medical, health and hospital authorities to organize all facilities for providing adequate diagnosis, treatment and orthopedic care.

The 303 cases occurring in August this year compare with 385 reported during the major outbreak of 1939. Whereas most of the cases in 1939 were concentrated in the southeastern counties, the cases this year have been widely distributed throughout the state, including the Upper Peninsula where two counties established quarantines on public meetings.

Diagnostic and orthopedic consultant service has been made available to all attending physicians and Toronto splints and Bradford frames have also been provided.

MEASLES OUTBREAK EXPECTED

Health department officials predict that measles will strike the state in epidemic proportions late this winter as the usual triennial cycle reaches its peak. Previous outbreaks in 1935 and 1938 reached a total of 80,000 cases, compared with the usual 6,000 to 8,000 cases in an off year.

Monthly reports of measles have been gradually climbing during the past year, reaching a total of approximately 14,000 cases for the first eight months. The health department is warning parents of young children to be on the lookout for possible exposures to measles cases and advising immediate medical attention for children who have been exposed and for those who are showing any early signs of the disease.

INCREASED DISTRIBUTION OF BIOLOGIC PRODUCTS

A general increase in the quantity of biologic products distributed during the past fiscal year is indicated in the report of the Bureau of Epidemiology for the year ending June 30, 1940.

Diphtheria toxoid distribution increased from 188,809 doses to 190,939; rabies vaccine from 8,226 seven-dose packages to 9,530; tetanus antitoxin from 35,849 vials (1500 unit) to 37,067; silver nitrate from 26,130 four-ampule packages to 31,072 packages.

Pertussis vaccine, distributed for the first time this past year, totaled approximately 22,000 complete treatments. Antipneumococcic serum types VII and VIII were added to the biologics now being distributed by the Department. Demand for type I and II serum continued to increase. Distribution of practically all other biologicals continued to indicate an increasing demand by physicians and health officers.

HEALTH EXAMINATIONS OF MIGRANTS

Michigan's health examinations of migrant beet field workers before permitting them to take jobs in this state were explained to a special congressional committee meeting in Chicago during August. Dr. A. W. Newitt, director of the Department's Bureau of Epidemiology, appeared at the request of the committee of the House of Representatives which is studying the problem of migratory workers. For the past two years the State Health Department has coöperated with Michigan sugar beet growers' associations in the examination of prospective workers before they migrated from Texas. This year 5,653 persons were examined and 123 cases of tuberculosis were found. In 1939 there were 4,271 examinations which disclosed 81 cases of tuberculosis.

DICKINSON HEALTH OFFICER NAMED

Dr. Edwin H. Place, former Midland County health officer and recently associated with the W. K. Kellogg Foundation, was appointed director of the Dickinson County Health Department effective August 24. Dr. Place succeeds Dr. E. F. Hoffman who has resigned to accept another position outside the state.

MOBILE X-RAY UNIT PLANNED

A mobile x-ray unit utilizing the new four-by-five inch roentgenographic film is being planned by the Bureau of Epidemiology as an effective weapon for locating early cases of tuberculosis. The new roentgenographic equipment will be housed in a motorized unit fully equipped for handling the x-ray examination of hundreds of suspected tuberculosis contacts in any community where it may be needed.

The low cost of the films used with this equipment will make possible the examination of all cases and contacts discovered by local full time health departments. The new photo x-ray unit will be similar to that which has been developed during the past two years at Detroit Herman Kiefer hospital. Approximately 6,000 cases of tuberculosis are reported annually in Michigan, and it is estimated that there are another six to nine thousand active cases still undiscovered at any given time.

OPPORTUNITY FOR PHYSICIANS IN THE NAVY

The Surgeon General of the Navy, Rear Admiral Ross T. McIntire, (MC), U.S.N., has announced that the Medical Corps of the Navy is being increased in strength proportionate with the expanding Navy and the Marine Corps. Examinations for appointments as commissioned officers in the Medical Department of the Navy will be held January 6th to 9th, 1941.

Rear Admiral McIntire also announced that appointments are being made in the Medical Corps, United States Naval Reserve, of male citizens of the United States, graduates of class "A" medical schools, who are under 50 years of age and who meet the physical and professional requirements.

The examination to be held in January will be for appointment as Assistant Surgeon, in the Medical Corps of the regular Navy, effective approximately two months from date of examination, and for Acting Assistant Surgeon (Intern), effective July 1, 1941. Requests for authorization to appear for these examinations should be submitted to the Bureau of Medicine & Surgery, Navy Department, Washington, D. C., in

sufficient time to permit the authorization to reach the applicant prior to December 30, 1940.

Applicants for appointments as Assistant Surgeon must be citizens of the United States between the ages of 21 and 31, graduates of Class "A" medical schools and have completed one year of intern training in a hospital accredited for intern training by the Council on Medical Education and Hospitals of the American Medical Association.

Applicants for appointment as Acting Assistant Surgeon (Intern) are not required to submit evidence of previous intern training, and are appointed for a period of eighteen months, during which time they serve as interns in the larger naval hospitals which are approved for intern training. After completion of one year of service Acting Assistant Surgeons are eligible for examination for appointment as Assistant Surgeons. Acting Assistant Surgeons and Assistant Surgeons receive the pay and allowances of a Lieutenant (junior grade).

GOVERNMENT TO NEED TEMPORARY AND PART-TIME CIVILIAN MEDICAL OFFICERS

The expansion of the Army creates a need for about 600 civilian medical officers in various grades for temporary and part-time service. The duties of full-time officers will be to act as doctors of medicine in active practice in hospitals, in dispensaries, and in the field. The duty of part-time officers will be to report for sick call at a fixed hour each day and to be subject to emergency call at all times.

The Civil Service Commission in making this announcement calls particular attention to the fact that part-time officers will be able to continue their regular practice. In order that this may be done, appointments to the part-time positions will be made of medical officers in the vicinity of the place of duty.

Information concerning these positions may be obtained from the Secretary of the Board of U. S. Civil Service Examiners at any first- or second-class post office, or from the United States Civil Service Commission, Washington, D. C. Physicians are urged to apply at once. This work is of the greatest importance to the success of the National Defense program.

Mail your Preparedness Questionnaire to the A.M.A. today!

2,561 AT M.S.M.S. DIAMOND JUBILEE

The greatest convention registration in the history of the Michigan State Medical Society occurred at the 75th Annual Meeting in Detroit, September 25, 26, 27. In all 2,561 persons were registered (not including members of the Woman's Auxiliary) of which 1,813 were physician-members of the Society.

M.S.M.S. DISTRICT MEETINGS BEING HELD

Four District meetings have been definitely scheduled for the month of October: The 14th District at the Michigan Union, Ann Arbor, October 8, by Councilor H. H. Cummings; the 4th District at the Columbia Hotel, Kalamazoo, on October 15, by Councilor R. J. Hubbell; the 3rd District at the Hart Hotel, Battle Creek on October 22, by Councilor Wilfrid Haughey; the 6th District at the City Club, Owosso, October 29, by Councilor Ray S. Morrish.

Other District meetings for October are being planned by Councilor R. J. Hubbell of the 4th District and Councilor Vernor M. Moore of the 5th District. It is anticipated that all District meetings will be completed by the end of November.

A special invitation to each physician to attend his important District meeting is being mailed by President P. R. Urmston.

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✶ COUNTY AND PERSONAL ACTIVITIES ✶

Theodore Weicker, chairman of the Board of E. R. Squibb & Sons, died at his home in Greenwich, Conn., August 7, 1940, in his 80th year.

* * *

Henry R. Carstens, M.D., Detroit, addressed the testimonial meeting at Kingston, Michigan, October 10, held in honor of George Bates, M.D., who completed fifty years in the active practice of medicine.

* * *

"Roentgen Signs of Mastoiditis and Its Complications" is the title of an article appearing in *The Journal,* AMA, issue of August 17, 1940, by V. C. Johnson, M.D., Ann Arbor.

* * *

William E. Blodgett, M.D., 603 Kales Building, Detroit, announces association of Dr. William H. Blodgett in orthopaedic and fracture practice. Dr. William H. Blodgett comes from the orthopaedic services of the Boston Children's and Massachusetts General Hospitals.

* * *

A special symposium on Occupational Diseases was held in Detroit on October 7 sponsored by the Industrial Hygiene Section of the American Public Health Association. The symposium was conducted by Kenneth E. Markuson, M.D. of the State Health Department, Bureau of Industrial Hygiene.

* * *

The Journal, AMA, issue of September 14, 1940, contained articles entitled "The Mental Hygiene Aspect of the Traffic Accident" by Lowell S. Selling, M.D., Detroit; and "Use of Sulfanilamide and Related Compounds in Disease of Infancy and Childhood" by Benjamin W. Carey, M.D., Detroit.

* * *

The String Quintet of the Wayne County Medical Society which furnished music at the Diamond Jubilee Smoker of September 26 is composed of H. C. Galantowicz, M.D., and L. R. Kaminski, M.D., violins; Leon Rottenberg, M.D., viola; W. P. Woodworth, M.D., cello; Eugene Savignac, piano; and Mr. Charles Baer, bass. A vote of thanks to these fine musicians!

* * *

Willard L. Quennell, M.D., for the past twenty years superintendent of Highland Park General Hospital, accepted a similar position with the Norfolk General Hospital at Norfolk, Virginia, on September 1, 1940. Doctor Quennell was tendered a farewell dinner at the Red Run Golf Course on August 14 by the members of Highland Park Physicians Club and the Staff and Board of Managers of the Highland Park General Hospital. Doctor Quennell is wished all success in his new work at Norfolk.

* * *

The Michigan Society of Neurology and Psychiatry announces that its next meeting will be held November 14, 1940, in the clubrooms of the Wayne County Medical Society, Detroit. The meeting will convene with dinner at 6:30 p. m., followed by a scientific session at 8:00 p. m. Frederic Schreiber, M.D., and Richard Sterba, M.D., will discuss respectively "Brain Abscess, Symptoms and Treatment" and "The Psychoanalytic Therapy." A business meeting will follow at 10:00 p. m. Interested members of the Michigan State Medical Society are cordially invited.

Annual Hospital Day at Woman's Hospital will be held Wednesday, November 13, 1940. There will be four speakers from 9:30 A. M. to 4:30 P. M. with a banquet at 7:30 P. M. The speakers will be four in number: Everett Dudley Plass, Professor of Obstetrics and Gynecology at Iowa University; Arlie Ray Barnes, Professor of Medicine at the University of Minnesota; Catherine Macfarlane, Professor of Gynecology at Woman's Medical College, Philadelphia, and Gordon Murray, from the Department of Surgery at the University of Toronto.

* * *

The Wayne County Medical Society Glee Club which entertained so well at the MSMS Convention in Detroit is directed by Mr. Marcus Kellerman of Detroit. The officers of the Glee Club are John Law, M.D., president; Harry Schmidt, M.D., vice president; E. J. Hammar, M.D., secretary-treasurer; and Eugene Savignac, librarian. The Glee Club members are sincerely thanked for their generous contribution to the entertainment of the physicians attending the Diamond Jubilee. The Glee Club includes the following physicians from Wayne County:

Henry S. Brown, Howard B. Burnside, Paul Brownell, R. J. Elvidge, G. S. Fisher, E. J. Hammer, Clyde K. Hasley, R. W. Hodges, George B. Hoops, W. E. Jahsman, F. Jarzembowski, S. L. Kline, John H. Law, R. W. Lignell, F. T. McCormick, Earl D. MacKenzie, H. A. Pearse, L. R. Rennell, Harry E. Schmidt, George Sippola, J. N. Salowich, M. L. Biery, B. M. Hamil, A. R. Oleck, Ed. J. Attarian, W. B. McIntyre, Sol Leland, Herbert L. Nigg, George Olmsted, H. K. Schillinger, M. R. Collings, Harry C. Mathews, Eugene Savignac, J. R. Timmins, A. W. Arms, F. K. Wieterson and G. E. Smith.

COUNTY MEDICAL SOCIETY MEETINGS

Calhoun County—September 3—Battle Creek—Speaker: J. P. Pratt, M.D., Detroit.

Ingham County—September 17—Lansing—Speaker: S. K. Kramer, M.D., of State Department of Health.

Kalamazoo County—September 17 — Kalamazoo—Business meeting.

Livingston County—September 6—Howell—Speaker: Frank H. Power, M.D., Ann Arbor.

Midland County—August 8—Midland—Speaker: C. K. Valade, M.D., Detroit, Chairman of the Syphilis Control Committee, MSMS.

Muskegon County—September 20—Muskegon—Program in Charge of E. N. D'Alcorn, M.D., E. M. Pettis, M.D., and T. J. Kane, M.D.

Washtenaw County—September 10—Ann Arbor—Speaker: Richard McKean, M.D., Detroit.

AMERICAN PUBLIC HEALTH ASSOCIATION MEETING

Health aspects of the current national defense program highlighted the 69th annual meeting of the American Public Health Association which was held the week of October 7 in Detroit. More than 3,500 members and guests of the Association representing every state and many foreign countries were in attendance, according to Henry F. Vaughan, Dr.P.H., executive secretary of the Michigan committee in charge of arrangements.

The Michigan Public Health Association also met this year in conjunction with the National Convention, commemorating its own 21st anniversary. There will be no separate Michigan Public Health Conference in November this year.

With public health workers to be called upon to shoulder additional responsibilities connected with the

national defense program, there was considerable interest in the general sessions concerned with this subject. Among the speakers on these programs were Dr. W. S. Leathers, president-elect of the A.P.H.A., Surgeon General Thomas Parran, Rear Admiral Ross T. McIntire, Major General James C. Magee, Lieutenant Colonel A. Parker Hitchens and Dr. A. J. Chesley.

* * *

POLIOMYELITIS CONSULTATION SERVICE

If you have a suspected case of poliomyelitis, call a consultant at once. The secretary of every county medical society has received a list of orthopedists and pediatricians who have volunteered their services to act as consultants during the present outbreak of polio.

If the patient is on the welfare or is medically indigent, arrangements have been made whereby consultation service will be available. In these cases contact not only your county society secretary but your county health officer.

The wise practitioner calls for consultation in every suspected case of poliomyelitis when he is not absolutely certain of his own diagnosis.

IN MEMORIAM

To the
Kellogg Foundation
Battle Creek, Michigan

WHEREAS, the sad tidings of the death of Doctor Stuart Pritchard have been made known to the members of the Michigan State Medical Society, and

WHEREAS, they have known and admired his work both as a practitioner and an official of a great Medical Foundation, and

WHEREAS, in his passing the medical profession and the public have suffered an irreparable loss,

BE IT RESOLVED, that the Executive Committee of the COUNCIL of the Michigan State Medical Society express to Dr. Pritchard's family and to the Kellogg Foundation its grief at the passing of a respected and beloved colleague, and its recognition of a great loss to the medical profession and the public.

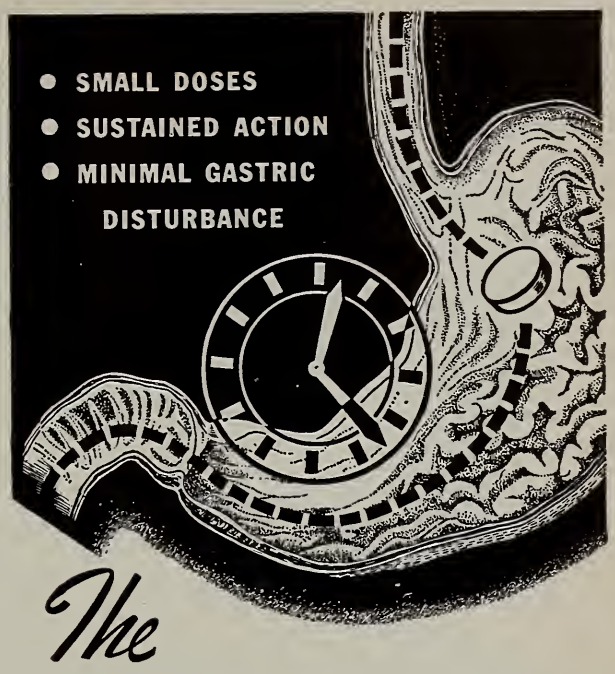
BE IT FURTHER RESOLVED, that a copy of this resolution be sent to the bereaved family and to the Kellogg Foundation.

MICHIGAN STATE MEDICAL SOCIETY
HENRY R. CARSTENS, M.D.
Chairman of The Council
BURTON R. CORBUS, M.D.
President, Michigan State Medical Society

Attest:
L. FERNALD FOSTER, M.D.
Secretary

* * *

Nils O. Byland, of Battle Creek, Michigan, was born August 28, 1881 in Sweden, was graduated from the University of Michigan Medical School in 1922, and joined the staff of the Battle Creek Sanitarium, where he worked under the late Walter H. Martin M.D. Doctor Byland went to Europe in the falls of 1923



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and 1924 to take postgraduate training in Paris, Stockholm, Vienna and Copenhagen and in 1931 he received additional training in London and Paris. He died August 28, 1940.

* * *

Charles Maxwell Harmon, of Cassopolis, Michigan, was born in Cassopolis, Michigan, January 28, 1890, and was graduated from Johns Hopkins University in 1916. He served as an interne in Church Home and Infirmary in Baltimore, completing his internship in 1917 when he enlisted for service in the World War. After his discharge in 1919, he entered the U. S. Public Health Service at Baltimore and continued in that work until January, 1923, when he went to Colombia, South America as physician for the Tropical Oil Co. In 1925 Dr. Harmon returned to the United States and to his native town Cassopolis, where he practiced until the time of his death, March 26, 1940.

* * *

John H. Jones, of Dowagiac, Michigan, was born in Frankfort, N. Y., on April 3, 1860 and was graduated from the University of Michigan Medical School in 1893. He went to Covington, Virginia, where he practiced medicine for one year. Thereafter returned to Dowagiac in 1894 which had been his home ever since. Doctor Jones was city physician a number of times, served many terms on the board of education, and was active in the affairs of the Cass County Medical Society as well as the State Society and the A.M.A. He was made an Emeritus Member of the Michigan State Medical Society in 1938. He died May 24, 1940.

* * *

Joseph S. Morrison, of Royal Oak, Michigan, was born in 1876 and was graduated from the Detroit College of Medicine in 1905. Doctor Morrison served as president of Oakland County Medical Society for one term, and as trustee for several years. In the field of civic activity, Dr. Morrison was elected repeatedly to membership on the Board of Education. He served as director of the Royal Oak Savings Bank, as well as other civic oragnizations. He died June 20, 1940.

* * *

Wilson Randolph of Detroit, Michigan, was born December 7, 1877 in Brockville, Ontario and was graduated first from the Detroit College of Dentistry which art he practiced for about one year. Later he attended the Wayne University College of Medicine and Surgery from which he graduated in 1906. After interning at Harper Hospital, Dr. Randolph opened his office at Crookston, Minnesota. He practiced there until 1914 and then returned to Detroit and associated himself with Alexander Blain Hospital where he was in charge of the Eye, Ear, Nose and Throat Department. Later he opened his own offices and carried on his duties until his death. Dr. Randolph was on the staff of St. Mary's Hospital. He died August 2, 1940.

* * *

William G. Wight of Lansing Michigan, was born in Lansing on December 15, 1875. After receiving his preliminary education in the Lansing Public Schools, he worked in various business offices and in 1898 purchased a grocery business. He continued in this business until 1901. In that year he entered the Michigan College of Medicine and Surgery in Detroit and received his degree in 1905. He interned at the Emergency Hospital in Detroit and 1906 opened his own office in DeWitt, Michigan, and practiced there until 1910 when he moved to Lansing. He was past president of Ingham County Medical Society. He died September 13, 1940.

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

PHARMACOLOGY AND THERAPEUTICS. By Arthur R. Cushny, M.A., M.D., LL.D., F.R.S., Late Professor of Materia Medica and Pharmacology in the University of Edinburgh. Twelfth Edition, Thoroughly Revised by C. W. Edmunds, A.B., M.D., Professor of Materia Medica and Therapeutics in the University of Michigan, Ann Arbor, Michigan; and J. A. Gunn, M.A., M.D., D.Sc., F.R.C.P., Professor of Pharmacology and Director of Nuffield Institute for Medical Research, University of Oxford, Oxford, England. Illustrated with 66 engravings. Philadelphia: Lea and Febiger, 1940. Price $6.50.

This established textbook has been revised by Edmunds and Johnson as a twelfth edition. It is probably the most readable pharmacology which is accepted as a textbook and reference book. As nearly as possible the drugs are considered as groups either therapeutically or because of clinical similarity. The numerous advances made in pharmacology present sufficient reason why the progressive practitioner should add to his library such a revised reference book as this one.

THE VIRUS, Life's Enemy. By Kenneth M. Smith, F.R.S., New York, The MacMillan Company; Cambridge, England, at the University Press, 1940. Price $2.00.

To many physicians the word "virus" carries with it rather an air of mystery and probably to most it represents an indefinite ultramind microscopic infective agent. Smith describes the facts and theories regarding the viruses and their action in a manner which is definitely clarifying. It is inexpensive and lends much to the understanding of this group of diseases.

BIOCHEMISTRY FOR MEDICAL STUDENTS. By William Veale Thorpe, M.A. (Cantab.), Ph.D. (Lond.); Reader in Chemical Physiology, University of Birmingham. With thirty-seven illustrations. Second edition. A William Wood Book. Baltimore: The Williams & Wilkins Company, 1940. Price: $4.50.

There have been so many developments in this field that a new edition has been made necessary within two years. Any practitioner who graduated more than ten years ago would do well to place such a volume in his library, and spend some hours bringing himself up to date in this interesting branch of science which is so vital to the present day practice of medicine. This is one of the few books on biochemistry which presents the subject in a manner that can be easily understood.

A TEXTBOOK OF MEDICINE. (By American Authors): Edited by Russell L. Cecil, A.B., M.D., Sc.D. Professor of Clinical Medicine, Cornell University Medical College; Associate Attending Physician, New York and Bellevue Hospitals, New York City. Associate Editor for Diseases of the Nervous System: Foster Kennedy, M.D., F.R.S.E. Professor of Clinical Neurology, Cornell University Medical College; Attending Physician, New York Hospital; Visiting Physician in Charge, Neurological Service, Bellevue Hospital; Consulting Physician, New York Neurological Institute. Fifth Edition, Revised and Entirely Reset. 1744 pages with 173 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price: $9.50.

This encyclopædic reference book is the fifth edition of the original volume published in 1927. Its long list of contributors represents the leaders of medical teaching in the United States. Almost eighteen hundred pages makes it a very thorough reference book for the general practitioner. The diseases are classified under such headings as "The Infectious Diseases," "Diseases of the Respiratory Tract," "Diseases of the Digestive System," etc., which makes it very much available to the busy practitioner. It is not very profusely illustrated but those which are included are all of practical value.

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MEDICINE—Two Weeks Course in Gastro-Enterology starting October 21. One Month Course in Electrocardiography and Heart Disease every month, except August and December.

FRACTURES & TRAUMATIC SURGERY—Informal Course every week. Special Courses may be arranged.

GYNECOLOGY—Clinical Diagnostic and Didactic Course every week.

OBSTETRICS—Two Weeks Intensive Course starting October 21. Informal Course every week.

OTOLARYNGOLOGY—Informal and Personal Courses every week.

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PHYSICAL DIAGNOSIS. By Ralph H. Major, M.D., Professor of Medicine in the University of Kansas. Second Edition, Revised. 464 pages with 437 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Price $5.00.

The second edition of Major's useful production may well be part of the preparedness campaign for each physician, for physical examinations will be an important part of medical practice in the next few years particularly. The author's insistence on the basic principles of instruction, palpation, percussion and auscultation as a major part of an examination is indeed refreshing. While taking full cognizance of the value of special laboratory procedure he spends most of the time in clarifying and interpreting the normal and pathological finds revealed by these primary methods. It will be well-worth-while for every physician to stimulate himself by such a book at this time.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1940. With the comments that have appeared in THE JOURNAL. Chicago: American Medical Association, 1940.

Here is the annual reprint of the reports of this committee. It includes also the editorial comments which have accompanied the reports in the *Journal of the A.M.A.*

NEW AND NONOFFICIAL REMEDIES, 1940. Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1940. Chicago: American Medical Association, 1940.

This volume contains descriptions of all the articles which were accepted by the Council on Pharmacy and Chemistry of the American Medical Association up to January 1, 1940. This very compact and complete volume with a splendid index may save you much waste of time and money since it carries all the accepted drugs and states for what conditions they can be dependably used. This book also serves to demonstrate the fine work which is done for the medical profession by the Council on Pharmacy and Chemistry of the A.M.A.

THE BACTERIOLOGY OF PUBLIC HEALTH. By George B. Cameron, Ph.D., Associate Professor of Bacteriology, University of Tennessee. St. Louis: The C. V. Mosby Company, 1940. Price: $3.50.

Beginning with a concise but inclusive historical review of bacteriology and its part in public health this book covers, in well-constructed chapters, all conditions of importance in the preservation of public health with primary emphasis on the bacteriological influence. There are excellent discussions on the educational side of the public health problem. Special chapters on filterable viruses and fungi are well-written. This volume presents a simple means of bringing yourself up to date in public health.

APPLIED PHARMACOLOGY. By Hugh Alister McGuigan, Ph.D., M.D., F.A.C.P., Professor of Pharmacology and Therapeutics, University of Illinois, College of Medicine. Illustrated. St. Louis: The C. V. Mosby Company. 1940. Price: $9.00.

Realizing that the study of some of the basic sciences including pharmacology is so frequently simply a didactic study, McGuigan has efficiently written a comprehensive volume on pharmacology based almost entirely on its practical effects in the practice of medicine. The chapter headings and the make-up of the book all are planned with this in view making it rather simple for the puzzled practitioner to decide what to use and why; and not be surprised at success or failure. Each chapter seems well prepared and complete. A very useful book.

JOUR. M.S.M.S.

READING NOTICES

DISEASES OF THE NERVOUS SYSTEM

Edited by Dr. Titus H. Harris, Galveston,. Texas, *Diseases of the Nervous System* has now been in existence ten months. The purpose of this monthly publication, which we highly endorse, is to place before the general practitioner literature of a practical, nontechnical, easily understandable nature, dealing with mental and nervous conditions. The editors felt that the family physician was not willing to struggle with the technical and intricate literature heretofore available and that only by directed simplification could a knowledge of nervous and mental affections be made available to the general man.

PREVENTION OF WOUND INFECTION

Late deaths due to wounds are almost invariably caused by infection. Buttle (Lancet, 1:890, 1940) points out that any measure which will prevent or cure streptococcal infection and gas gangrene would greatly reduce this mortality.

Although chemotherapy is not a substitute for removal of damaged tissue or drainage of infected parts, it may nevertheless prevent the spread of infection to other tissues and, by inhibiting the multiplication of bacteria. assist the defensive mechanism to clear up the infection. The sulfanilamide drugs have more chance of being effective against invading bacteria if given immediately after wounding, and they may be administered both by mouth and locally into the wound. It is anticipated that by this means the extensive amputations commonly necessary in the last war may now be largely avoided.

There are many opportunities for the application of this method in civil life. as well as in war. Sulfanilamide, Lilly, is available in tablets and pulvules of several sizes, making for convenient dosage.

"WHEN BOBBY GOES TO SCHOOL" AVAILABLE TO ANY PHYSICIAN

Under the rules laid down by the American Academy of Pediatrics, their new educational-to-the-public film "When Bobby Goes to School" may be exhibited to the public by any licensed physician in the United States.

All that is required is that he obtain the endorsement by the officers of his county medical society. Endorsement blanks for this purpose may be obtained on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

Such endorsement, however, is not required for showings by licensed physicians to medical groups for the purpose of familiarizing them with the message of the film.

"When Bobby Goes to School" is a 16-mm. sound film, free from advertising, dealing with the health appraisal of the school child, and may be borrowed without charge or obligation on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

PURE LUTEINIZING HORMONE ISOLATED FROM ANTERIOR PITUITARY GLAND

The isolation in pure form of the luteinizing (interstitial cell-stimulating) hormone of the anterior lobe of the pituitary gland of swine was announced in the August 23 issue of **Science** by Drs. Shedlovsky and Rothen in the Rockefeller Institute for Medical

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Research, New York, and by Drs. Greep, Van Dyke and Chow of the Squibb Institute for Medical Research. New Brunswick, N. J. The achievement is specially noteworthy because the chemical nature of the endocrine principles of the anterior pituitary gland renders them difficult to isolate and analyze since they are proteins or complex polypeptides which are extraordinarily vulnerable to most types of ordinary chemical manipulation.

Chemical analysis of one specimen of pure hormone showed it to have the following composition: carbon, 49.37 per cent; hydrogen, 6.83 per cent; nitrogen, 14.93 per cent; ash, 0.93 per cent.

Thus far it has not been possible to isolate large enough quantities of these pure hormones for clinical studies. This is obviously the next step as soon as satisfactory yields can be obtained. At any rate it seems to have been clearly demonstrated that two gonadotropic hormones can be isolated from the anterior pituitary gland. They are separate chemical entities and act on different structures within the primary sex gland (ovary or testis).

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The annual written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada on Saturday, January 4, 1941, at 2:00 P. M. Candidates who successfully complete the Part I examinations proceed automatically to the Part II examinations held later in the year.

The following action regarding case records to be submitted by candidates taking the Group B, Part I, examination was passed by the Board at its annual meeting in Atlantic City, N. J., on June 6, 1940: "Case records submitted by candidates must be of patients treated within four years prior to the date of the candidate's application. The number of cases taken from one's residency service should not be more than half (25) of the total number of fifty (50) cases required."

Applications for admission to Group B, Part I, examinations must be on file in the Secretary's Office not later than October 5. 1940.

The general oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted by the entire board, meeting at Cleveland, Ohio, immediately prior to the June 1941 meeting of the American Medical Association.

After January 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I and Part II examinations.

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JOUR. M.S.M.S.

(Continued from page 789)

in the small bowel nor near the rectum, but at some intermediate point assuming that the bleeding is coming from a single focus and suggests a Meckel's diverticulum.

4. The presence of gastric mucosa in the diverticulum is occasionally seen and symptoms referable to peptic ulcer are not uncommon.

5. Intussusception is the most common cause of intestinal obstruction in infants and is usually due to an elongation of the mesentery associated with a dyskinesia of the small bowel.

6. Intussusception in adults is characterized by the symptoms of an acute intestinal obstruction and is usually due to intestinal polyps and benign or malignant tumors having pedunculated bases which serve as a fulcrum for the beginning of the intussusception.

7. Valvular intestinal obstruction is characterized clinically by symptoms of an acute or subacute obstruction alternating with a symptomless phase during which period the patient is quite comfortable and the signs of obstruction are absent; the mechanism is dependent upon the ball valve action or simple valvular action of an interlumenal mass which may become fixed and obstruct the lumen of the bowel.

8. Moccasin snake venom is a useful adjunct in our therapeutic armamentarium in the treatment of hemorrhage of the gastro-intestinal tract.

9. The aseptic anastomosis technic as advocated by Rankin in our hands gave excellent results.

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Hypertensive Disease*

By Edward J. Stieglitz, M.D., M.S., F.A.C.P.
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Hypertensive disease, often called "essential hypertension," must be distinguished from the state of hypertension. Hypertension *per se* is not a disease but a physiologic state which is but an exaggeration or distortion of the normal circulatory mechanism. An adequate intra-arterial pressure is vital to the maintenance of the circulation, just as a warm internal temperature is necessary for life. It is not until the temperature *rises* that it is abnormal and fever is said to exist. Fever results from a disturbance of the thermal equilibratory processes but it is not a new phenomenon. Likewise, the arterial tension is abnormal only when it is unduly raised or lowered. Similarly, these changes do not involve any new or strange mechanisms. Hypertension may exist temporarily without hypertensive disease. The blood pressure rises with anger or fear or effort. Such fluctuations do not constitute disease. The term "hypertensive disease" implies persistence of the disturbed state and definite progression.

Definition.—Hypertensive arterial disease may be defined clinically as a chronic progressive disorder of homeostasis with a consistent pathogenesis in which generalized hypertonicity of the arterioles leads to impairment of tissue nutrition and degenerative changes in the arterioles. The hypertension of the upper extremities observed in instances of coarctation of the aorta is not due to arteriolar constriction, is not progressive and does not lead to degenerative changes in the arterioles. Such hypertensions, therefore, though chronic, are not identical with hypertensive arterial disease. The fundamental factor in hypertensive disease is the persistent arteriolar constriction. The greater the constriction of the myriads of arterioles, the greater the peripheral resistance to the circulation. This thesis must be kept in mind constantly if therapy is to be sound and effective. All the damage done by hypertensive disease is either due to the histanoxia of impaired capillary flow or to the increased cardiac burden in overcoming the augmented peripheral resistance. The arterioles control not only the flow or irrigation to the fertile fields below the arteriolar dam, but the pressure back of the dam.

The Pendulum Swings

Perhaps the most significant advance in medical thought since the introduction of bacteriology has been the change in appreciation of many of the phenomena of disease. Formerly all symptoms or signs were changes to be energetically combatted. It is not so many years since teachers of therapeutics devoted most of their precious lecture time to antipyretics. Now fever is induced as a therapeutic agent! The recognition that many phenomena of disturbed physiology, such as fever, edema, leukocytosis or hypertension, are compensatory physiologic adjustments and may be valuable defense reactions on the part of the body, has done more to bring sanity and logic into therapeutics than any other concept. The appreciation of this viewpoint is

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still young and there are vast unexplored fields yet to be studied. It might be interesting to speculate upon how much the advent of bacteriology delayed the full appreciation of these truths: Was not pus once called laudable? The ancient phrase "laudable pus" has been the butt of abuse and derision for it was forgotten that it was not the pus that was damnable, but the infection! In the presence of pyogenic infection the formation of pus and the development of a leukocytosis may be as desirable as fever in pneumonia.

We must be cautious in not letting the pendulum of thought swing too far. To insist that the phenomena of disease are not necessarily wholly undesirable does not imply that they are without potential detriment. Each problem must be appraised individually, both quantitatively and qualitatively. Pyrexia may be a defense mechanism in generalized infections but hyperpyrexia may well be fatal. It is characteristic of biologic reactions that response to stimulation is frequently in excess of requirements. Overcompensation is the rule rather than the exception. This is illustrated by scar formation; until the connective tissue contracts there is more new tissue than there was originally. Hypertension arises as a result of constrictor stimulation of the arterioles: the reaction of spasticity is one of overcompensation. Cognizance of this should explain why it may be more desirable to reduce the arterial tension only slightly rather than to theoretically normal levels.

Theory of Treatment

Thus, if hypertension is a physiologic phenomenon which may be desirable to the body economy, or even necessary thereto, why should we be concerned with therapeutic measures designed to reduce the arterial tension? There are several reasons. Overcompensation of physiologic reactions usually cease with the termination of stimulation. This is not characteristic of arteriolar hypertonicity. Arteriolar spasticity reveals a strong tendency toward self-perpetuation. It appears to lower the threshold of stimulation and make the musculature of the arteriolar media more sensitive to normal vasomotor stimuli than it was before. Furthermore, the hypertonicity is progressive. This progressiveness is usually slow, but extremely persistent. **There is no inclination toward spontaneous remission or cure. With moderate or mild hypertension the patient is not particularly jeopardized and active therapy would be largely unnecessary were it not for the fact that persistence of the hypertonia slowly leads to progression of the disorder, degenerative changes in the vessels and inevitable jeopardy later on.**

Excessive elevation of the arterial tension is precarious. Therefore, arrest of the progression is essential.[10] The management of hypertensive disease must be prophylactic in attitude.

In late hypertensive disease the arteriolarsclerotic changes are fixed and irreparable. Early in the pathogenesis, however, the changes are reversible and amenable to therapeutic control. Prophylaxis involved two objectives: (1) Prevention of the disease and (2) arrest of the progression. The former depends upon the earliest possible discovery of hypertension and the latter upon relatively early institution of therapy. It is important to keep in mind that reduction of the arterial tension should be slow and gradual if we are to avoid difficulties from "relative hypotension"[11] and disturbing symptoms arising from abrupt changes in circulatory equilibrium.

By postponement of arteriosclerosis we reduce the injury to vital structures such as the brain, myocardium or renal parenchyma. The cardiac insult in hypertensive disease is twofold. Not only is the myocardium deprived of its normal quota of oxygen but it is required to carry an ever-increasing burden of work in overcoming the rising peripheral resistance. Reduction of excessive hypertension reduces this element of cardiac overwork.

All therapy is based upon three fundamental principles: (1) Correction of etiology, (2) Reduction of the physiologic burdens of the injured structures, and (3) Aid to tissue nutrition and respiration. The omission of any one of these makes for incomplete, ineffective and unphysiologic therapeutics. The treatment of hypertensive arterial disease will be considered along these lines.

Therapy Directed Against Etiology

Curative therapy must be based upon eradication of the etiologic factors responsible for disease. We cannot expect cure of a sore

heel due to a nail in the shoe unless the nail be removed, no matter how many soothing ointments or hot dressings are applied to the heel! Obviously the first and most important problem is accurate etiologic diagnosis.

This is never easy and often most complex because of the multiplicity of superimposed factors. Nothing ever happens from only a single cause. There must be suitable soil and environment as well as seed for development of any action. In many diseases, such as typhoid fever or smallpox, the various factors are almost identical in all instances of the specific disease, and etiologic diagnosis is not very complex. It is not so with hypertensive arterial disease, for every patient presents a new and strictly individual etiologic problem. The etiology of hypertensive disease may be defined as "anything which over a long period of time causes arteriolar irritation in a vulnerable individual." In clinical practice it is the thoroughness with which etiologic studies are made which determine therapeutic effectiveness more than anything else. Because of this obligatory individualization it is impossible to consider here all the details of treatment.

Etiology involves three major groups of factors: (1) Predisposing; (2) Provoking and (3) Perpetuating influences. These may vary in their relative importance but are, nevertheless, invariably involved. For example, in the instance of an acute contagious disease the predisposing factors of low immunity and exposure and the provoking factor of the specific bacteriologic organisms are far more significant than any perpetuating forces. With cancer, on the other hand, the predisposing vulnerability of the individual and the powerful, though unexplained, perpetuating factors are of much greater moment than the provoking or initiating irritants. In hypertensive arterial disease, as in all disorders, full and painstaking search for all the contributory factors is prerequisite to intelligent, logical and physiologic therapy.

There are many who deny that hypertensive disease has any cause. The very term "essential hypertension" implies hopelessness of learning the cause. Such assumptions are absolutely unwarranted and serve only as excuses for those too indolent to search for the causative factors. We will not find truth unless we exert ourselves to search. Although the factors are many they may be classified into an orderly scheme. Complete discussion of all the etiologic factors is impossible here, but a condensed tabulation of the more significant influences may clarify the problem.

Condensed Classification of Etiologic Factors in Hypertensive Disease[11]

I. Predisposing factors (vulnerability or constitutional factors):
   1. Hereditary vulnerability
   2. Emotional instability (worrier personality)
   3. Sthenic physique
   4. Constitutional endocrinopatheis
      a. Thyrotoxic
      b. Diabetic
      c. Virilescence
   5. Anatomic anomalies

II. Provoking factors (initiating or precipitating factors):
   1. Intoxications
      a. Endogenous (metabolic)
         (1) Fatigue
         (2) Endocrine disturbances
         (3) Nephritis
         (4) Pregnancy
         (5) Anemia
      b. Exogenous
         (1) Metals (Pb, Ar, et cetera)
         (2) Drugs
         (3) Tobacco (??)
         (4) Dietary habits
            (a) Alcohol (??)
            (b) Excesses of condiments
            (c) Excesses of salt (?)
            (d) Excesses of protein (?)
            (e) Inadequate water
   2. Infections
      a. Focal infection of long duration
      b. Generalized infection (e.g., Influenza)
      c. Syphilis (?)
   3. Neurologic factors
      a. Increased intracranial pressure
      b. Fatigue from worry, stress, etc.

III. Perpetuating factors
   1. Intrinsic in pathogenesis[10]
   2. Renal histanoxia[5,6,18,19]
   3. Cerebral histanoxia
   4. Habit of arteriolar musculature
   5. Intrinsic vulnerability invites recurrences and exacerbations from any provoking factors

Such a highly condensed outline can do little more than suggest the type of factors involved and where to search for them. The last item mentioned is of particular clinical significance. To illustrate: hypertensive arterial disease arises in a vulnerable woman following her last pregnancy, and is acutely exacerbated at her climac-

teric; with appropriate therapy this is brought under control until an acute influenzal infection gives rise to another severe acceleration of the progressing hypertension. We must constantly keep in mind that the presence of hypertensive disease implies vulnerability to arteriolar excitation and irritation and that, therefore, recurrences and exacerbations may arise from a great many provocative influences, either singly or in combination.

Predisposng Factors.—The predisposing factors are, naturally, the least amenable to therapeutic correction. We can accomplish little or nothing with constitutional vulnerability determined by heredity years before the onset of the illness. Nevertheless, an evaluation of these factors is essential, particularly in the early detection of the disorder when prophylactic measures are most effective. By means of the *Cold-Pressor Test,* devised by Hines and Brown,[8] it is possible to determine abnormal vasolability even before the appearance of hypertensive disease. Discovery of such potential hypertension[12] is of great importance in prophylaxis.

Application of this test to children[2] has revealed that such vulnerability is distinctly an inherited characteristic and thus by forewarning of the potential menace permits advising preventative avoidance of unnecessary insults to the circulatory apparatus at an age where dietary, emotional and other habits are being formed.

Provoking Factors.—Etiologic treatment directed against provoking factors can be more specific. It is here especially that therapy must be highly individualized, for each patient presents new and different problems. A few illustrative examples must suffice. Removal of foci of infection, endocrine medication, measures to combat chronic plumbism, attention to chronic renal disease and correction of unwise habits are a few of the modes of attack which may be indicated by the specific provoking factors elicited. Infections or intoxications which may have initiated the progression of hypertensive disease years previously are, of course, but little open to therapeutic attack.

Diet

Just what constitutes the proper dietary for the hypertensive patient has been the subject of much controversy. Theories and fads have come and gone as additional knowledge dispelled the obscuring mists. At the present the prevailing attitude is one of surprisingly good sense: *moderation in all things.* Protein, which was formerly radically restricted, is now permitted in at least normal amounts and when anemia coexists with the hypertension may be wisely increased above the usual intake. It is immaterial whether meat be "white" or "dark"—experimental studies have exposed the fallacy of the older apprehension concerning "red" meat. That the abuse of spices and condiments is unwise is now generally accepted. The sharp condiments are potential vascular and/or renal irritants and add nothing of value to the rations. Salt is required—in moderation. The régimes of horror on "salt free" diets are happily affairs of the past. Reduction of weight in the obese hypertensives is important because of the additional cardiac burden imposed by the obesity. Neither coffee nor alcohol need be forbidden, but they should be taken with temperance and used rather than abused. There is great variation to the tolerance to tobacco. For some any indulgence is unwise, but others apparently are unaffected by years of smoking.

It is of the greatest importance to remember that the deeply ingrained habits of elderly people are best but gradually modified and that abrupt interdiction of coffee, alcohol or tobacco may do more harm than good. Emphasis on moderation is all important. This moderation applies not only to food and drink but to work and play as well.

Careful inquiry will reveal that a great many hypertensive patients habitually consume too little water. A liberal fluid intake is often of considerable therapeutic assistance. Water is an effective diuretic and it is certainly the safest. Wherever renal functional impairment complicates the picture, a minimum fluid intake of from two to three liters per day is imperatively necessary. The habitual fluid consumption is an aspect of individual dietary routines which is all too frequently forgotten or ignored.

Therapy to Reduce the Physiologic Burdens

Rest.—Rest is the oldest of therapeutic measures. To rest when sick or injured is instinctive with all animals. Rest has both qualitative and quantitative attributes. Rest may be localized, as in immobilization of a broken finger, or generalized, as in sleep. Psychic rest is sometimes best obtained through vigorous physical activity. Sometimes rest may be relatively complete but more frequently rest implies merely reduction of the physiologic burdens to levels slightly below the habitual. The effectiveness of rest depends not only upon its intensity but also upon its *duration.* To accomplish the objective of giving the tissues an opportunity to do their own repairing by relieving them of the necessity of forced continuous activity usually requires more time than the patient willingly relinquishes.

The injured structures are the ones which urgently require prolonged rest. Where rest is required and how it may be acquired will depend upon what structures are injured. Rest for the injured or fatigued structures does not necessarily involve invalidism or confinement.

This second principle of therapeutics is particularly important in the management of hypertensive disease because many of the vascular and cardiac changes are attributable to fatigue.[10] And, rest is the only answer to fatigue.

Arteriolar changes and degenerations in hypertensive disease are due chiefly to exhaustion from the continuous spasticity of the smooth muscle cells of the media.[4,10] The pathologic changes are consequent rather than causative of the arteriolar constriction, responsible for the hypertension. This very spasticity is the essential starting point in the progressive pathogenesis of the disease.[11] A major factor in the premature cardiac exhaustion and defeat in hypertensive disease is the accumulative fatigue engendered by overcoming the constantly increasing peripheral resistance. The objective is thus providing prolonged vascular (arteriolar) relaxation and the reduction of the arterial hypertension is our guide and measure of this vascular rest. The primary concern should be with the arteriolar tonus rather than with transient variations in the arterial tension. It is the patient and not the symptoms of hypertension which should be under treatment.

Vascular Relaxation.—Vascular relaxation may be sought for by several different therapeutic approaches. Psychiatric, medicinal, surgical and physical measures are all applicable. No single "remedy" exists or will be found. Wise management does not rely upon drugs alone but utilized them as adjuncts to a sane régime and simple psychiatry. Less obsession with "treatments" and more concern with treatment will improve results.

The best advice is relatively useless unless it is followed. It does not suffice, therefore, to merely ennumerate to the patient what he should and should not do. In chronic disorders it is particularly important that an intimate and whole-hearted coöperation between the patient and physician be maintained.

Hypertensive arterial disease is not "curable" in the generally accepted usage of the term. It is, however, controllable. This distinction is consequent to the intrinsic or constitutional vulnerability of the patient. Vulnerability is irrevocable and not amenable to therapeutic correction. Thus the potentiality of exacerbations or accelerations of the degenerative changes is always present: hypertensive disease provoked by an intoxication of pregnancy may be acutely and severely exacerbated by a sore throat. For these people especially, safety depends upon constant vigilance. It is wise to make this clear from the first, emphasizing the necessity of prophylaxis. To gain and hold the confidence and coöperation of the hypertensive patient is half the battle won.

Sometimes this is very difficult. The majority of patients with hypertensive disease feel vigorous and well, particularly in the early stages of the disease. The typical hypertensive has a distinct personality[11] which resents restraint, is forceful, ambitious and restless. Habitual worrying is characteristic. They are not truly pessimistic or fatalistic, but are almost constantly concerned with their responsibilities. Hard drivers of themselves, these patients are frequently eminently successful in their chosen careers. But their success is hard won; the price is premature physical depreciation and depletion. Much can be accomplished by sane counsel if

instituted early in the course of the disease before the degenerative changes are irrevocably permanent. Encourage the acquisition of creative hobbies. The therapeutic and prophylactic effectiveness of creative hobbies, the wise investment of leisure[21] and the values of mental relaxation are fascinating subjects which must be passed by regretfully here.

Medicinal Measures

Almost innumerable are the medicinal measures that have been suggested, tried, ardently advocated, found wanting and later discarded. No fully adequate drug is as yet available. Nor is it likely that any single panacea for hypertensive disease will ever be found. Drugs can be but auxiliaries in the management of this disorder, to be applied individually and with critical judgment of their values and limitations. Lack of space prohibits all but mention of a few of the less unsatisfactory medicaments.

Sedatives may prove of considerable value if wisely employed. Because of the prolonged, chronic course of hypertensive disease and the necessity for continuing management for months or years, it is imperative that the risks of drug habituation be kept in mind. The desideratum of mild continuous sedation limits the appropriate drugs to a relatively small number. Sedation aids in arteriolar relaxation, both directly and through diminution of the psychic turmoil. Small doses of the bromides are frequently valuable and may be safely continued for months if the physician is aware of the possibility of bromism. In a large series of patients so treated bromide intoxication required the discontinuance of such medication in approximately three per cent of the patients.[9]

Tissue Extracts.—Tissue extracts of various sorts induce diffuse vascular dilation and reduction of the blood pressure. Extracts of liver, brain, kidney, heart muscle and pancreas have been tried. The effects of all these extracts are transient. They must be administered by injection at fairly frequent intervals. These requirements automatically make such therapy generally ineffective in practice, for the patients decline to continue such "treatments" regularly. The hypertensive feels too well and is far too busy with his many responsibilities to be conscientious with such bothersome therapy. To do the greatest good to the greatest number, medication in chronic illness must not only be safe but also its administration must not be irksome.

Xanthin Derivatives.—The xanthin derivatives effect principally the coronary and renal vessels and have little action upon the arterial tension as a whole. Aminophyllin, theobromine, caffein and many other related compounds are useful chiefly as supportive auxiliaries where the cardiac nutrition is impaired. This occurs late in the course of the disease. Early, when one may hope to accomplish prophylactic arrest of progression, these compounds have been disappointingly ineffective.

Thiocyanates.—Sodium or potassium thiocyanate, induces prolonged vascular relaxation. The pharmacologic action approaches that most desired. But therapeutically effective doses are precariously toxic. Thiocyanate therapy is not safe unless the patient be under close and watchful observation. By frequent determinations of the concentration of thiocyanate in the blood, as suggested by Barker,[3] much of the risk is removed but all the desirable simplicity of oral administration is lost. Furthermore, despite improvement of the analytic methods in the last year or two, the methods are far from satisfactory.

Nitrites.—Nitrites are active vasodilators. The soluble nitrites, such as sodium and amyl nitrite, and the alkyl nitrates may be of inestimable value in acute vasospastic emergencies but the pharmacologic response of arteriolar relaxation is far too fleeting to be of appreciable service in inducing arteriolar *rest.* Prolonged arteriolar sedation is hardly obtainable from drugs whose effects terminate in a matter of minutes. Because a poorly soluble compound which permitted only slow but continuous absorption appeared to be more appropriate, extensive studies on the effectiveness of bismuth subnitrate were made.[10,13] Bismuth subnitrate has a mild and continuous nitrite effect.[10] The nitrate is reduced to nitrite by B. coli. Oral administration of bismuth subnitrate in moderate doses increases the concentration of nitrite in the blood to about three times the normal content, as does sodium nitrite.[15] Clinical experience has demonstrated that bismuth subnitrate in doses of ten grains thrice daily

is an effective and valuable adjunct in the treatment of early (spastic) hypertensive disease. The vaso-sedation, however, is very mild; too mild to accomplish much in instances where there are active provoking factors driving up the arterial tension. The same limitation applies to the similarly inorganic sodium nitrite.

So many other drugs have been tried in hypertensive disease that it is impossible to even enumerate them all. One by one they have been tried and discarded. Many are still on the market, heralded by their manufacturers with more enthusiasm than scientific accuracy: amorous mistletoe and repellent garlic, bitter iodides and sweet watermelon seeds are all available! Their very multiplicity betrays their ineffectiveness. A safe, effective vasodilator drug of prolonged action has not yet been found. But we may be sure that synthetic chemistry will ultimately produce such a compound.

Surgical Measures

Surgical measures for the control of hypertensive arterial disease can be considered only briefly here. The chief services which surgery can render the hypertensive patient are the removal of foci of infection, blood transfusions for the nephritic and rarely phlebotomy in acute conjestive cardiac failure. The recent wave of enthusiasm for neurosurgical intervention is already on the wane. The attempts to deprive large vascular areas of their vasomotor innervation and thus reduce the hypertension have been woefully disappointing if viewed after intervals long enough to be significant. That a temporary reduction of the blood pressure follows is undisputed. But the effects are transient.[19] Clinical results enthusiastically reported are actually negligible: reduction of the mean diastolic pressures by 5 to 10 mm. Hg. following extensive sympathectomy. Evaluation of therapeutic effectiveness should be based upon the percentage approach toward normal of the diastolic tension.[16]

The reported improvements imply a correction of approximately 15 per cent of the hypertonia. Such "accomplishments" certainly do not justify the considerable surgical risks involved. When the fundamental pathogenesis of hypertensive disease[17] is given the appreciation it deserves and the complex, multiple etiology is considered, it is quickly apparent that such approaches lack physiologic logic. These surgeons may perhaps be admired for their courage, but not for sound therapeutic sense.

Similarly disappointing and even more radical have been the suggestions anent subtotal adrenalectomy and de-innervation of the adrenal glands. That the therapeutic results are utterly insignificant does not surprise one. Despite oft repeated attempts to show that there is more than a normal amount of epinephrin in the blood of patients with hypertension, this has never been convincingly demonstrated. There are extremely rare instances of severe and violent hypertension due to adrenal tumors. For these cases surgical intervention is logical and the results are dramatic. But such neoplastic or hyperplastic endocrine disturbances account for perhaps one case of hypertension in one hundred thousand!

Physical Measures

Physical measures are frequently beneficial auxiliaries in obtaining the desirable rest and relaxation. Warm baths, massage, sunshine and congenial non-competitive sports all have their place as useful adjuncts in selected cases. The benefits to be derived from sojourns at spas and watering places depend largely upon the economic status of the patient and whether such an environment will be congenial. To urge a man to spend several weeks at an expensive spa, when he can ill afford it, merely increases his worry: the net consequence is harm. We must not forget also that one of the greatest sources of benefit in these places is the increased fluid intake which is usually ritualized; this may be accomplished much more economically at home. Diathermy, appropriately applied, reduces the arterial tonus, but the induced relaxation is but temporary and of little lasting benefit.

Aid in reducing the physiologic burdens of the injured structures in hypertensive disease may be rendered by many different therapeutic measures. The choice and application of these must be individualized, for each patient presents a different psychic as well as physical problem. Wisdom and judgment in the choice of measures distinguish the wiser physician from those chiefly concerned with symptomatic

treatments. Let us learn from Gilbert and Sullivan's Mikado: "our object all sublime" should be to let the therapy fit the patient.

Therapy to Aid Nutrition and Tissue Respiration

This third therapeutic principle is all too frequently neglected. To fail to give it full consideration is to advise treatment which is incomplete and frequently inadequate. In hypertensive arterial disease the measures which are included under this heading are of particular importance. It must never be forgotten that all the damage which is done by hypertensive disease results from interference with the nutrition and respiration of the body tissues because of the consequent impairment of the circulation.

The greater the arteriolar constriction the higher the diastolic tension and the poorer the circulation peripheral to the arterioles.

The clinical and pathologic consequences of hypertensive disease are almost all directly attributable to histanoxia of important tissues. It is hardly just or logical to expect normal and effective physiologic functioning of tissues whose supply of oxygen is inadequate. There has been an unfortunate tendency to confuse histanoxia (inadequate supply of oxygen to the *tissues*) with anoxemia (lowered content of oxygen in the *blood*). In hypertonia of the arterioles histanoxia exists although there may be no anoxemia. If the two are superimposed, the detriment to the tissues is tremendously enhanced.

Anemia.—This is just what occurs when anemia co-exists with arterial hypertension. As mentioned previously, the two do often occur in the same patient. The coincident or related anemia invariably aggravates the insult to the tissues. Therefore correction of anemia is frequently the most important therapeutic aid which we can give the hypertensive patient. It has been observed repeatedly[20] that correction of anemia alone causes considerable and lasting reduction of the arterial tension. The anemia probably has some as yet poorly understood etiologic relation to arteriolar spasticity. It is not difficult to visualize the benefits of such correction to partially asphyxiated renal parenchyma, to the brain or to the struggling myocardium.

Relaxation of unduly constricted arterioles will in itself improve the tissue circulation. Thus reduction of the arterial tension through arteriolar dilation is indicated on the score of improving tissue nutrition as well as reducing the physiologic burden of the spastic arteriolar musculature. Specifically limited impairment of the renal function is the rule in hypertension. These changes, however, are usually so inconspicuous that renal function studies are necessary to detect them.[18,19] If in lowering the arterial tension the renal arterioles are *less constricted* improvement in the renal functional activity may be expected.[10,20] If the arterial tension falls through loss of cardiac force (systolic rather than diastolic reduction[11]) and the renal vessels *remain constricted*, renal decompensation may impend.

Food Restriction.—Nutrition, however, involves more than the tissue supply of oxygen. A well balanced ration is necessary: prolonged application of severe dietary restrictions frequently do more harm than good. It is especially important that the supply of protein be not excessively curtailed, for a diet deficient in protein handicaps hematosis and the normal nutrition of vitally important parenchymatous tissues. This is particularly true when renal disease complicates hypertension: albuminuria is not an indication for restriction of protein in the diet but rather a reason for increasing the protein intake to replace that which is being lost through the urine. The recent and significantly suggestive researches of Goldblatt[5,6] and others have re-emphasized the rôle of the kidneys in the etiology of hypertensive disease. Anything which the physician can do to improve the renal circulation and thus the renal respiration and nutrition, will be of great and lasting benefit to the physiologic balance of the hypertensive patient.

Conclusions

It has been the intent to point out that a thorough understanding of the etiology, the pathogenesis and the mechanisms of hypertensive arterial disease are essential prerequisites to intelligent therapy. The management of the patient includes many factors, among which drugs play but a minor rôle. It cannot be reiterated too often that each instance of hypertensive disease presents individual problems in etiology,

prognosis, and treatment. The institution of routine methods of treatment is never justified.

Hypertensive disease, if detected early and properly taken care of, is a controllable disorder, although it cannot be considered as curable. Until extensive and irreparable damage has been done late in the disease the therapeutic attitude must be one of prophylaxis. The great majority of hypertensive patients are in no immediate jeopardy and the problems resolve themselves into attempts to halt the progression of the disease and postpone as long as possible the ultimate termination. Of great importance is the constant recognition of the significance of the intrinsic vulnerability of the arteriolar mechanism to irritation and stimulation. This constitutional vulnerability, or instability, is not amenable to correction.

Therefore, exacerbations and recurrences of hypertension are to be expected from any of the innumerable sources of arteriolar irritation to which such patients are exposed. Constant observation and control are necessary if such exacerbations are not to undo all that which had been previously accomplished.

Hypertension arises fundamentally through biologic overcompensation of the arterioles to constrictor stimuli, irrespective of the origin of such stimuli. It must not be forgotten that the phenomena of increased arterial tone are basically compensatory, and are, therefore, not necessarily wholly undesirable. A gradual moderate but prolonged diminution of arterial tension is far more beneficial, though less dramatic, than rapid, but transient reduction.

All curative therapy falls into three fundamental categories: (1) Therapy directed against etiology; (2) Therapy intended to reduce the physiologic burden of injured structures: rest; and (3) Therapy directed toward improvement of tissue respiration and nutrition. To neglect the institution of any one of these principles is to advise incomplete and inadequate treatment.

Effective application of the first principle is wholly dependent upon the discovery and recognition of the etiologic factors: these will vary with each individual case. In hypertensive disease relaxation or sedation of the hypertonic arterioles constitutes the major approach to the second principle of therapy. The effectiveness of such measures is revealed by reduction of the diastolic tension. Evaluation of therapeutic results should be based upon observations of at least a year and the percentage approach toward normal rather than upon the mere millimeter fall of the tension over a few weeks or months.[16] The most significant application of the third principle of therapeutics in the management of hypertensive patients consists in correction of any anemia. Even minor depressions of the hemoglobin content of the blood may prove physiologically important.

We can accomplish most by attacking the problem as a whole and including all the many different factors in our considerations. The psychic aspects of the characteristic hypertensive personality and the economic problems of the patients warrant attention as well as the more purely physical factors. It is the patient, not the disease alone, that we must be concerned with. Before dispensing any advice, no matter how trivial or how serious, weigh the probable benefits against the probable detriments. If they are about equal—don't do it.

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Indirect Blood Transfusion

Vacuum and Pressure Method

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■ The indirect method of blood transfusion by vacuum and pressure was first used at Providence Hospital, Detroit, Michigan, in 1934, and has now been in use almost exclusively for two years, with very gratifying results.

We have all, no doubt, at one time or another, officiated at an indirect blood transfusion, and have cut down on the vein, inserted the canula, or needle, and have waited, holding the receptacle containing the sodium citrate, or sodium oxalate, fifteen, thirty or forty-five minutes for a sufficient quantity of blood. Having done so myself I concluded there must be some more rapid method and so devised one in which negative pressure could be created that would permit the blood to be drawn from the vein, as with a syringe and needle.

Equipment

A standard Cutter flask, made by the Cutter Laboratories, Berkeley, California, was used. This flask is graduated to 1,000 c.c. A rubber stopper with two openings is inserted. Through each opening I introduced two glass tubes. One is placed flush with the inner surface of the cork, and the other so that it comes about one inch from the bottom of the flask. To each a moderately flexible rubber tube, about one foot in length, is connected. Attached to the end of the long tube is an adapter, to which a large transfusion needle could be connected, and in the short tube is a two-way cork adapter, to which a 50 c.c. syringe was attached (Fig. 1).

Thus far a set-up for the removal of blood from the donor is complete except for the sterilization of the apparatus, preparation of the recipient and donor by laboratory methods, preparation of the donor's arm and tourniquets.

Next, using about 50 c.c. of 3 per cent sodium citrate, which is prepared in ampule form by many of the pharmaceutical companies, the transfusion needle is placed into its container. By withdrawing the plunger in the syringe, after having turned the valve in the two-way stop-cock adapter so that it is in direct communication with the flask, a negative pressure is created in the flask, resulting in the sodium citrate being drawn through the needle and rubber tube into the flask, thereby coating the tube with an anti-coagulant and placing it where it is desired. Rapidity of withdrawal of blood through the tube lined with sodium citrate prevents clot formation.

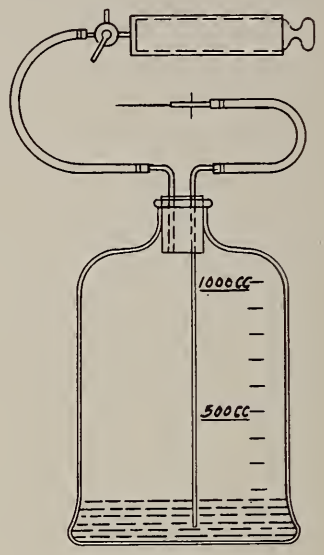


Fig. 1.

Collection of Blood

Next comes the difficult procedure of inserting the needle into the vein. It has been found that a great number of operators will apply the tourniquet too tightly, causing a constriction, not only of the venous circulation, but also of the arterial, thereby inhibiting the flow of blood to the extremities where it must go before it can be used. Therefore, make it a duty to feel that the radial pulse is full and bounding before attempting to insert the needle. Also, do not attempt to go directly down into the vein, but start into the skin about a half- to three-quarters of an inch from the side of the dilated vein. This, also, permits the use of a local anesthetic without obliterating the sight of intended puncture of the vein. This will be found to be very useful in transfusing children.

To enter the vein, slide the point of the needle, bevel away from the vein, and the longitudinal axis of the needle almost parallel with that of the vein, so that it may be drawn into it and not aimed and jabbed at the vein. The larger the needle used the more rapidly is the blood obtained.

After the needle is well inserted, by manipulating the syringe and stop-cock a constant negative pressure can be maintained in the flask. Gently

agitate the flask while drawing the blood and you will find that five hundred c.c. of blood can be obtained in approximately ten minutes, or less.

Transfusion of Blood

After withdrawal the top of the flask is covered with sterile gauze and placed in a pan of warm water at body temperature and brought to the patient's room. Here the tubing is removed from the flask (glass tubes being left in place), a long, sterile, rubber venoclysis tube, washed in sterile saline solution, is connected with the shortest of the two glass tubes, and the position of the two-way stop-cock adapter is reversed to the long glass tube. Another sterile rubber tube is attached to the second valve of the stop-cock and a small glass funnel is attached to this, filled with cotton, and held at the level above the blood container which is now inverted and hung on a hanger above the patient's bed. Filtered air can now be used drawn through the cotton, forced into the bottom of the flask, which is now uppermost, causing a positive pressure and a more rapid evacuation of the blood from the flask into the vein of the recipient, regardless of the size of the needle used.

Certainty can be made that the needle is in the recipient's vein by lowering the flask below the level of the bed with the flask in the upright position. Entrance will result in some blood returning to the bottle.

Make certain that with the positive pressure used the rubber stopper does not come out and spill the contents of the flask over the patient and bed.

Some prefer not to use the positive pressure method of introducing the blood into the recipient's system. The only complaint regarding this method is that one must remain and observe the patient closely so that the needle does not slide out of the vein, causing a hematoma.

Emergency Set-up

Packs should be sterilized in advance for preparedness in emergency use. These consist of:

1. Rubber stopper with the two glass tubes in place.
2. Rubber tubing—one long, leading to recipient, with needle and glass adapter, and three others, about one foot long.
3. A two-way stop-cock adapter.
4. A fifty c.c. syringe.
5. Sodium citrate
6. Novocain, hypodermic syringe and a fine needle.

The flasks need only be sterilized when necessary and before using washed out with sterile saline solution.

One of the greatest advantages realized in this method is the increased sterility and lessened

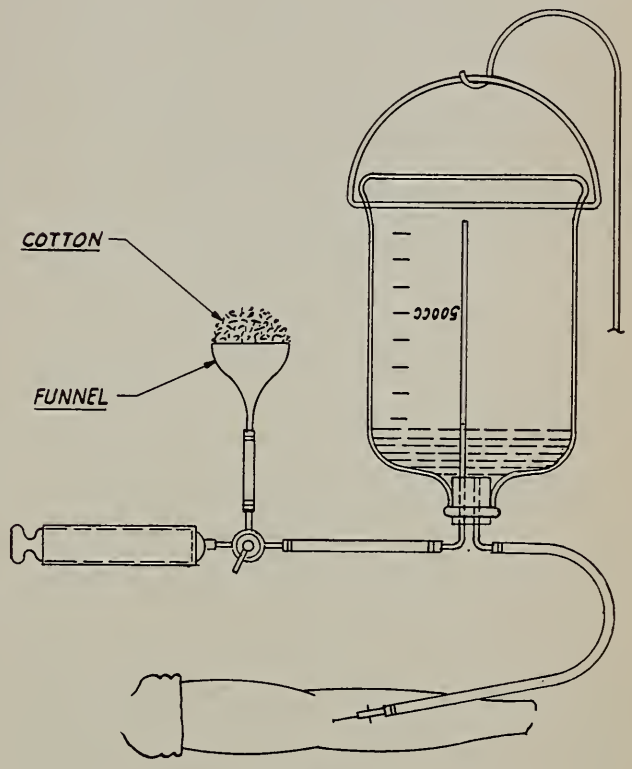


Fig. 2.

probability of contamination because it is an entirely closed procedure. This method is also conveniently used in the removal of blood from a donor for storage for use at a later date.

Conclusions

1. It is believed that the use of this type of blood transfusion technic will relieve the surgeon of many of the worries of contamination often found in other methods of indirect blood transfusion because of the closed system employed.

2. Much valuable time is saved between the drawing of the blood and the receiving of it by the recipient. This is especially valuable in emergencies when the direct method is for some reason not available or practical.

3. A valuable adjunct to home therapy with but little cost for expensive apparatus.

4. A successful attempt to approach the simple technic of removal of blood and injection of it by the syringe and needle method.

5. An attempt to minutely describe the tech-

nic of inserting the needle into the vein. This, if practiced, will exclude the necessity of having a dissecting set ready for use except in case of collapse.

6. A method of using a local anesthetic in conjunction with blood transfusions without obliterating the sight of expected puncture.

Delivery of the After-Coming Head

A Modification

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■ The use of external abdominal pressure in delivery of the after-coming head has almost become routine, but the procedure used to apply this pressure varies greatly. Since Mariceau first described his method in 1668, for the delivery of the after-coming head, it has been used extensively with minor modifications. Early in the 19th century Wigand and E. Martin described a method for the extraction of the after-coming head which Winckel gives as follows: "The first and second fingers of the hand whose palm corresponds to the face are introduced into the mouth, and the lower jaw is directed to the middle of the pelvis, after which the child's body is placed astride the arm, and then the fetal head is forced down through the small pelvis by pressing upon the occipital region." In reviewing five widely used texts of obstetrics only one made specific mention of a method used in applying pressure externally upon the occiput. The procedure of applying the external pressure is of the greatest importance. As illustrated in the drawing (Fig. 1), the fingers are just above the symphysis pubis when the pressure is applied to the occiput. This is necessary to avoid the placenta, which is usually located on the anterior or posterior walls of the fundus, and rarely between the fingers and the occiput. This allows for better and gentler application of pressure to the occipital region with less effort and greater efficiency. The pressure can be applied with either the right or left hand as the case may be and only the index finger is necessary in the baby's mouth. I find that this procedure may be used to better advantage in the smaller hospitals where there are no interns or assistants, and in home deliveries. If the obstetrician would use this method in all his deliveries of the after-coming head, he would become familiar with it and be able to use it when necessity demands.



Fig. 1. Procedure of applying external pressure

The advantage of this method is that the operator is able to deliver the after-coming head without the aid of an assistant.

THE SCHOOL PHYSICIAN IN THE PUBLIC HEALTH PROGRAM

Dr. Don W. Gudakunst, New York City—"It is particularly important to emphasize the fact that the school physician is expected to participate in a general public health program. This statement implies that the services rendered by the school physicians and school nurses should be in line with the community health program—particularly should the school physician have an awareness of the part he plays in the health education movement. There is a very healthy trend in many parts of the country toward reduction of the actual amount of service rendered to school children by school physicians and nurses, with a corresponding increase in the educational program—teaching children, families, and the entire community the need for medical service and when and where and how to obtain it."

—From the Discussion of "The School Physician in the Public Health Program" by George M. Wheatley, M.D., *N. Y. State Journal of Medicine,* October 15, 1940.

Early Carcinoma of the Cervix

Diagnosis and Treatment

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THE DIAGNOSIS of early carcinoma of the uterine cervix presents one of the more important medical problems which confronts the general practitioner. Too frequently one will observe a patient that gives a history of a long standing, maloderous, bloody vaginal discharge when they first consult their physician. Such a case does not present difficult diagnostic problems, for an advanced carcinoma is generally apparent, even upon a minimal examination, and the blame for delay lies entirely with the patient. It does become the problem and responsibility of the general practitioner to recognize the symptoms and lesions that are suggestive of carcinoma of the cervix in the earliest stages; obviously quite different from the advanced type.

In early clinically recognizable cervical carcinoma an irregular, slightly elevated, and at times an indurated mass or area of various redness is situated near the os, commonly in the posterior portion. Frequently this appears as a small ulcer, the base of which may be a leukoplakic area, a neglected cervical erosion, or lesions embracing inflammatory or chronic irritative conditions. Due to its friable nature the area bleeds readily upon palpation, and because of this, visualization of the cervix should always proceed the digital examination when one wishes an untraumatized field for inspection. Bleeding and friability are the earliest dependable gross signs of carcinoma and a biopsy from such an area affords conclusive histologic evidence for early treatment.

Technic of Examination

Proper visualization of the cervix is the combination of adequate exposure and the correct illumination which will afford the alert examiner every advantage to discover areas which exhibit unusual cell activity.

Every general practitioner has certain speculum, such as the standard bi-valve, which afford adequate exposure and to which he has become accustomed. The addition of a black finish to the speculum, such as that used in photography of the cervix,[3] decreases the reflected light materially annd is a definite help to many, as the cervix is framed in a light-absorbing contrasting color.

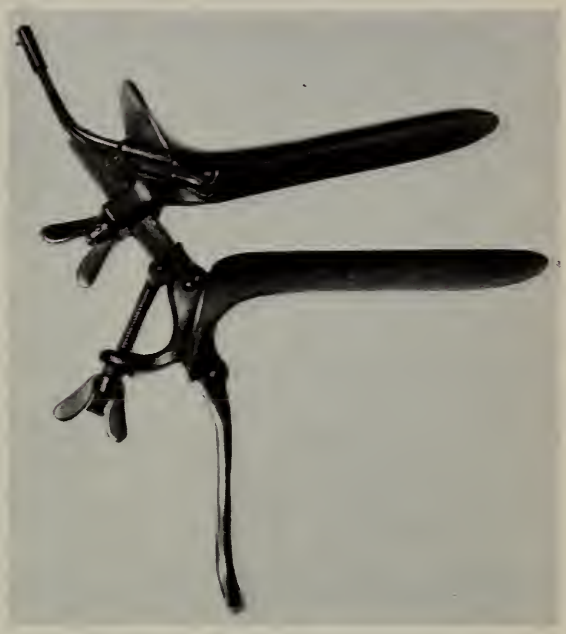


Fig. 1.

In those cases where the vaginal walls tend to collapse to prevent a satisfactory exposure of the cervix, one can use a large size Penrose drain over the blades. This retracts the walls perpendicularly as the blades are separated.

Correct illumination of the cervix is a relative factor, and that which may appear sufficient for one examiner may prove very inadequate for another. As the intensity of light varies inversely as the square of the distance, it is axiomatic that the closer the light is located to the cervix, the better the cervix will be illuminated, considering the focus and spread of the source as sufficient to cover the entire vaginal vault. Thus a light or lights which are located within the speculum and controlled by a rheostat, can be increased in intensity to such a degree that the entire vaginal vault is flooded with a shadowless brilliance without unduly limiting the instrumentation necessary to any cervical examination. This type of unobstructed, intensely-illuminated visualization can be called the camera view and when one observes the cervix under

these conditions more areas will show sufficient deviation from the normal to arouse suspicion and thus guide the operator in his choice of locations for biopsy.

Illustrating the types of everting and inverting carcinoma one commonly encounters are several typical examples in the various stages, from the early bluish-white, smooth, indurated mass to the far advanced cavernous ulceration invading the entire cervix.

Further aids in the early diagnosis of carcinoma are the Schiller test and colposcopy. The technic of the Schiller iodine test is described by many authors[6,8,9] and its value can best be told by Schiller[9] who states, "the reaction is not a specific one, but the use of iodine is a rapid and practical way of finding suspicious alterations that might otherwise escape the examiner. Microscopic examination of the tissue from the white patches is necessary to establish a definite diagnosis." There is no doubt this test would aid the general practitioner in his search for early cervical carcinoma providing he has had the experience necessary for its proper interpretation. Novak[8] states, "the chief value of the Schiller test, even to the expert gynecologist, is to indicate the proper points for biopsy, though in a great majority of these cases the suspicious areas are apparent enough." Of the value of the colposcope he says, "I do not believe that a good gynecologist who examines the cervix very carefully in a very good light will overlook many cancers that the colposcope will reveal." In a similar manner Martzloff[6] says of the colposcope, "in routine use so far we have not discovered areas which could not be detected with the unaided eye on careful methodical examination."

The bimanual examination will often aid in locating indurated masses within the cervix which may show little evidences of their invasive character upon visualization. Palpation will reveal the friable nature of the tumor and guide the examiner in determining the extent and form of the lesion.

According to Healy[5] eighty to eighty-five per cent of all carcinomas of the cervix can be diagnosed by a careful history, a methodical inspection, and an accurate pelvic palpation. However, in early carcinoma, the histologic evidence presented by the biopsy of a suspicious area is absolutely essential.

The dangers of disseminating cancer cells attending the excision of tissue have been overemphasized. With a careful surgical technic sufficient tissue can be obtained with no extra hazard to the patient. The natural sequence to an early diagnosis is the prompt establishment of adequate treatment which offers a better prognosis when the disease is still a local entity.

Treatment

The object of the treatment of cancer of the cervix is the total eradication or destruction of the entire growth by that method which, from clinical investigation and experience, is best suited to the individual case. The object of treatment is not to use surgery because one is a surgeon, nor radiotherapy because one is a radiologist, but to carefully determine that course which offers the patient the best prognosis attended with the least mortality.

Masson[7] says of surgery, "with our present knowledge, the only surgical treatment justifiable, even for lesions of microscopic size, is either the Wertheim abdominal hysterectemy

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LEGEND FOR COLOR PLATE

A. Early proliferating squamous-cell carcinoma of the cervix. Age 23.

B. Case A, five months after radiotherapy.

C. Proliferating squamous-cell carcinoma of the cervix. Age 29.

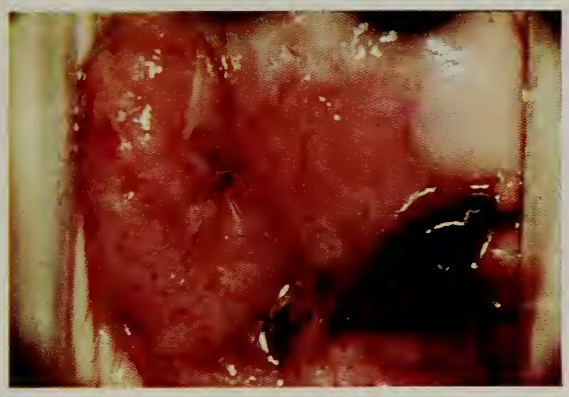
D. Case C, five months after radiotherapy.

E. Advanced squamous-cell carcinoma of the cervix with ulceration. Age 55.

F. Five years after radiotherapy of early proliferating squamous-cell carcinoma of the cervix. Age 26.

G. Advanced squamous-cell carcinoma of the cervix with ulceration and beginning excavation. Age 41.

H. Advanced squamous-cell carcinoma of the cervix with marked infiltration, ulceration, and cavity formation. Age 50.



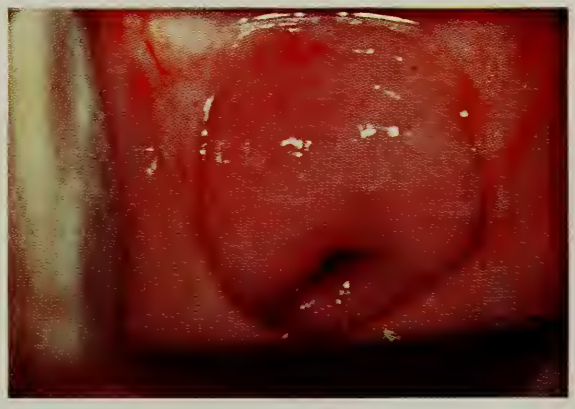
A



B



C



D



E



F



G



H

or the Schauta vaginal hysterectemy, both preceded by cautery or zinc chloride destruction of the local lesion." Baer[1] states "for the cure of carcinoma of the cervix the old issue of surgical measures versus irradiation scarcely exists any longer. Treatment with radium or roentgen rays or both has almost completely displaced surgical methods in the hands of the most experienced specialists here and abroad."

The therapeutic application of roentgen and radium rays in equal intensities produce the same biological reactions and should be considered as one dose applied by different methods, much as one gives digitalis by hypodermic or by mouth for its action upon the heart. In reality the only difference is that the radium may be applied as a source of radiation within or directly surrounding the tumor, while roentgen rays must be directed from wihout and cover a much larger area. Each has its indications and limitations.

There is general agreement that radium placed within the cervical canal will not control disease located at distances greater than three or four centimeters from the source. Thus, in most patients, radium alone is inadequate to deliver a lethal dose to the entire tumor. In order to increase the radiation to the outlying tumor-bearing areas and lymphatics, high voltage roentgen rays are added in an attempt to extend the zone of lethal action over the entire parametria.

The cervix is located in an area especially favorable for radiation therapy, for the normal tissues surrounding it are able to tolerate far more intensive irradiation than a similar tumor in the mouth or the pharynx, and further, they are capable of being displaced away from the field of greatest intensity.

The susceptibility of the cancer cell to injury or destruction by the action of radium or roentgen rays constitutes what is called radiosensitivity. Bowing and Frick[2] and Healy[4] regard all cervical lesions as radiosensitive, stating they have rarely encountered lesions in which there is a limited response to irradiation.

The trend of radiotherapy is to employ the protracted, fractional dose method, repeating treatments on successive days, not only to irradiate all points sufficiently but to attack the greatest possible number of cells at the time they are dividing; a period in their life cycle in which they are highly radiosensitive.

The improved statistics verify our belief that combined internal and external radiation therapy properly carried out, still offers the best chance of cure to the patient suffering from cancer of the uterine cervix.

Conclusion

The early diagnosis of carcinoma of the cervix together with adequate radiation therapy requires the active coöperation of the general practitioner, the pathologist, and the radiologist. If we are to improve our results, the greatest opportunity is presented by an earlier diagnosis and satisfactory cures should be obtained in 60 per cent of the cases in this early group.

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KIND WORDS FOR THE G. P.

First comes the general practitioner. Nine times out of ten, he is the man you want. We are told that he is losing ground, that he was all right for the horse and buggy days, but that now everybody ought to have a specialist. Now I can speak on this subject with some right to be believed, for I am a specialist myself. But I take off my hat to the good general practitioner. Upon him, I truly believe, depends the health of the race.—Terry M. Townsend, M.D., President New York State Medical Society. Reprinted from the *New York Sun*, April 22, 1940.

Male Hypogenitalism*

By Willard O. Thompson, M.D.
Chicago, Illinois

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■ Hypogenitalism in the male may be primary or secondary and may be produced in two ways:

1. Primary disease of the testis.
2. Lack of adequate stimulation of the testis, notably by the anterior lobe of the pituitary.

Primary disease is seen in individuals of the castrate, eunuch and eunuchoid types, those with testicular destruction and atrophy following infection and inflammation of the testes and in some old men with failing testicular function. Lack of adequate stimulation is seen in patients with hypopituitarism including those with the Fröhlich syndrome, and in some patients with undescended testes. In the primary type, substitution therapy with male sex hormone is indicated; and in the secondary type, stimulation therapy, notably with the anterior pituitary-like principle of pregnancy urine.

Physiology

A few simple considerations about the physiology of the testis will help to clarify some of the problems involved. An intimate relationship exists between the anterior lobe of the pituitary and the testis.[5] This is demonstrated by the persistence of infantile genitalia in individuals who develop marked hypopituitarism before puberty, and atrophy of the genitalia in individuals who develop marked hypopituitarism after puberty. The testis consists essentially of two parts: (1) The seminiferous tubules, the most important function of which is to produce spermatozoa; (2) The interstitial cells of Leydig, the most important function of which is to produce male sex hormone. Upon the production of male sex hormone depends the production of the secondary sexual characteristics of the male, which include the development of the external genitalia, the growth of the prostate, development of hair in various parts of the body, change in the pitch of the voice and in the contour of the body. Gonadotropic material is produced in the anterior lobe of the pituitary which influences both functions of the testis. There is some evidence that these two functions of the testis may be influenced by separate gonadotropic principles in the anterior lobe of the pituitary but this is a debatable point. It is thought that one principle influences the function of the seminiferous tubules in the testis and the development of ova in the ovary (so-called follicle stimulating hormone), whereas the other influences the function of the interstitial cells in the testis and causes luteinization of follicles in the ovary (so-called luteinizing hormone). Commercial gonadotropic preparations from the pituitary and from the serum of the pregnant mare contain both factors, whereas those from castrate and menopausal urine contain the follicle stimulating principle, and those from the urine of pregnant women, the luteinizing factor. Selective stimulation of the testis is, therefore, possible although the pituitary and mare's serum preparations are still too weak to produce desired results. The material from castrate and menopausal urine is not available commercially.

The best gonadotropic preparation for the treatment of hypogenitalism in the male is that from the urine of pregnant women. It is available commercially under a variety of trade names. This material acts in hypogenitalism by stimulating the interstitial cells of the testis to produce more male sex hormone, and is indicated whenever the testis is capable of responding to stimulation, whereas treatment with male sex hormone itself represents substitution therapy and is indicated whenever the testis is incapable of responding to stimulation.

The form in which the male sex hormone is secreted and circulates is unknown. The most potent androgenic material which has been iso-

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lated so far from the testis is testosterone. For commercial use this is prepared synthetically. Certain esters of testosterone are more potent than testosterone itself. For clinical work the propionic acid ester (testosterone propionate) is used.

The function of the testis appears to undergo marked alteration at the time of puberty. Studies on the excretion of androgenic material in the urine appear to indicate that very little male sex hormone is produced before puberty. At this time a marked increase in production takes place which accounts for the development of the secondary sexual characteristics.[4] The production is maintained at a high level for about three decades and then appears to decrease to a variable extent, although the data on this point are not extensive enough to warrant conclusions. In some individuals a marked decrease in production of male sex hormone appears to occur in later life, resulting in a condition resembling the menopause in the female. The production of spermatozoa begins at the time of puberty and may show varying degrees of reduction in later life, but commonly persists to old age.[2]

PRIMARY HYPOGONADISM

Eunuchism and Eunuchoidism

Castration early in life produces typical changes in the individual. All of the characteristic secondary sexual changes fail to appear at the age of normal puberty. The genitalia remain infantile. The prostate does not develop. Pubic and axillary hair do not grow. The beard does not develop. The voice remains high-pitched. The shoulders are narrow and the muscles are poorly developed and resemble those of the female. The skeleton shows characteristic changes. The trunk is short in proportion to the extremities, which become abnormally long. The patients are very shy and effeminate, avoid all games in which they must disrobe before other people, shun physical combat with their fellows, and develop a marked inferiority complex. The breasts are usually not full and the patients often not obese. The condition which develops after castration thus appears to be different from that of the Fröhlich syndrome, in which full breasts and the characteristic girdle type of obesity make their appearance. A condition exactly the same as that produced by castration early in life may develop when both testes fail to descend and remain within the abdominal cavity. Eunuchoidism, however, is by no means an invariable result of bilateral failure of testicular descent. While the intra-abdominal testis is never capable of producing spermatozoa, it may produce a variable degree of male sex hormone as judged by the development of a normal sized penis, some pubic and axillary hair and normal muscles and skeleton. While some production of male sex hormone is rather common in such cases, the development of a eunuchoid state is the most common result.

When loss of testicular function occurs after puberty as a result of castration, inflammation or trauma, the clinical picture produced is slightly different. The genitalia show varying degrees of atrophy, but remain much larger than they were before puberty. Some loss of hair occurs in the axillary and pubic regions and on the face, trunk and extremities, but the loss is rarely complete. The voice may become slightly higher pitched, but it does not revert to its prepubertal state. Impotence commonly, but not invariably results. The individuals affected become weak and apathetic and may have periods of worry, irritability and depression and suffer from hot flashes, just as some females do at the time of the menopause. As previously pointed out, the testes of some old men, although not diseased, appear to show some waning of function, which produces in milder form the symptoms that follow castration.

In the conditions just described the testis usually is incapable of responding to stimulation, either because of removal, destruction or improper environment. It is, therefore, necessary to supply artificially the male sex hormone which the testis is incapable of producing. Fortunately, testosterone propionate is a very potent product, but it is necessary to use it in adequate doses.

For most therapeutic purposes it is impractical to use concentrations of less than 25.0 mgm. per c.c. Our conclusions[6] are based on observations with the material of the Schering Corporation (Oreton).† The value of this material is well illustrated in eunuchoid individuals.

†Kindly supplied by Drs. Stragnell and Gilbert.

Effect of Testosterone Propionate

In a dose of 50.0 mgm. per day it produces the following changes in such patients in the course of from four to six months:

Development of secondary sexual characteristics. The penis may become as large as that of a normal adult, although its development is usually not quite as satisfactory as this. The scrotum enlarges and the prostate, which is commonly not palpable before treatment, usually develops until it becomes from 2.5 to 3.0 cm. in diameter and is raised from 0.2 to 0.3 cm. above the level of the rectum. Hair develops all over the body including the pubic and axillary regions and the face. Erections, masturbation and nocturnal emissions become frequent. The pitch of the voice rapidly becomes typically masculine.

A marked increase in appetite and gain in weight amounting to as much as 40 pounds in four months.

An associated marked increase in the size and firmness of muscles, which assume the characteristics of the normal adult male, whereas in the eunuchoid state they resemble those of the female. This physical change is associated with a marked increase in mental acumen. The patients are capable of and have the initiative to do much more physical and mental work.

A marked emotional change. The patients develop self-confidence and a determination to seek and defend their rights. Their effeminate characteristics disappear.

A temporary increase in basal metabolism of as much as 30 per cent in some patients.

Since the loss of testicular function in eunuchism and eunuchoidism is permanent, treatment will probably have to be continued throughout life, although after the desired changes have been produced it may be possible to maintain them with smaller doses. What the dose for maintenance will prove to be is still to be worked out. It is desirable to begin treatment at the age of ten to twelve years in order to avoid the skeletal changes which develop when lack of male sex hormone persists during the age of normal puberty.

The Male Climacteric

There appears to be some waning of testicular function in later life, the extent of which varies greatly in different men. There is no definite epoch in the male like the menopause in the female. In some males, however, there may develop a condition resembling the menopause in the female, characterized by the development in varying degree of the symptoms which follow castration (described above). In such individuals, testosterone propionate in a dose of 50 mgm. three times a week often produces striking improvement. Caution must be exercised, however, in treating old men with this material. The increase in body vigor which it produces may tax the cardiac reserve and precipitate mild decompensation: and the increase in the size of the prostate which it induces may aggravate latent benign prostatic hypertrophy.

Impotence

The problem of impotence is a complex one. Psychic factors play an important rôle in many cases. If these are excluded and a definite glandular origin established as in older men whose testicular function, previously good, is beginning to wane, then glandular therapy may produce improvement. This may be of the substitution or of the stimulation variety, depending upon the capacity of the testis to respond. To be specific, testosterone propionate may be used if the testis is incapable of responding, and the gonadotropic material from the urine of pregnant women, if it is capable.

Benign Prostatic Hypertrophy

This is a common disorder and occurs to some extent in four out of ten men after the age of 60. Various observers have reported improvement in this condition from the use of the male sex hormone. This is difficult to understand because of the following considerations:

Production of male sex hormone is responsible for the development of the prostate.

Castration and atrophy of the testes produce atrophy of the prostate.

Development of the prostate can be produced in eunuchs and in eunuchoid individuals by administration of testosterone propionate, and in normal young boys by administration of this material or gonadotropic factor from the urine of pregnant women.

Benign prostatic hypertrophy occurs at an age when the production of male sex hormone is supposed to be reduced.

Heckel and Thompson[6] have been unable to produce any improvement in 22 patients with

benign prostatic hypertrophy during the administration of testosterone propionate. Some of the men felt slightly more energetic while taking it but there was no reduction in residual urine or improvement in any other abnormality related to the prostatic hypertrophy.

Testosterone propionate is a very important therapeutic agent, but, like many other potent products, has been used in a variety of conditions in which there is no specific indication for its use. The chief indication for its use is loss of testicular function, primarily in patients whose testes are incapable of responding to stimulation. Testosterone propionate injures the normal testis temporarily, as judged by a marked reduction in the spermatozoa count during its administration.[3] It is, therefore, probably desirable to use stimulation rather than substitution therapy whenever the testis is capable of responding to stimulation.

SECONDARY HYPOGONADISM

Hypopituitarism and the Fröhlich Syndrome

A very common disorder associated with hypogenitalism is the Fröhlich syndrome, which is also characterized by obesity and in the more marked forms by a low basal metabolism. The obesity is most marked in the trunk and thighs, the forearms and lower legs often being normal in size. In males the shoulders are narrow, the breasts full and the hips broad, creating a feminine contour. The excess abdominal fat hangs down in an apron over the pubic region, producing a characteristic transverse fold in the lower abdomen. Genu valgum is almost always present. There is often a maxillary prognathism in contrast to the mandibular prognathism of acromegaly. In most cases no enlargement of the sella turcica is noted, although the case originally described by Fröhlich was associated with a craniopharyngioma. It has been pointed out by Bauer[1] that some fat boys of this type develop a more or less normal body contour without treatment as sexual maturity sets in. It has been our observation, however, that in many, if not most, of them physical and sexual development do not become normal. There appears to be little doubt that hypopituitarism is present in patients of the Fröhlich type, but the cause of the obesity is obscure. It may be related to a disturbance in the base of the brain above the pituitary.

In patients who develop chromophobe adenomas and craniopharyngiomas of the pituitary early in life, the Fröhlich syndrome may develop with or without dwarfism and sexual maturity may fail to occur. When such tumors develop after puberty they may produce a syndrome related to that of Fröhlich with genital atrophy, girdle type of obesity and low basal metabolism. Obesity, however, is not an invariable result of such tumors or of hypopituitarism from other causes. In the most marked form of hypopituitarism, as, for example, that seen in Simmonds' disease, cachexia and loss of weight are associated with hypogenitalism.

The ideal form of treatment in the Fröhlich syndrome and other forms of hypopituitarism would be the administration of a pituitary preparation containing the gonadotropic factors and other principles necessary to correct the associated pituitary deficiencies. From a practical standpoint, however, the effect of pituitary extracts is too uncertain to warrant their routine clinical use.

The best gonadotropic material to use at the present time is that prepared from the urine of pregnant women (A.P.L., Follutein, Korotrin, Pranturon, Antuitrin-S, et cetera). This should be given in a dose of from 500 to 2,000 rat units daily (as much as 5,000 rat units daily in older patients) and treatment should be started about the age of ten or eleven years and kept up beyond the age of normal puberty in order to avoid the skeletal changes which result without treatment. Response to treatment is by no means absent after the age of puberty, however, as is illustrated by production of marked genital growth in a man thirty-seven years old during the daily administration of 2,500 to 5,000 rat units of A.P.L. If given sufficiently early, the treatment may alter the skeletal configuration and by increasing activity, produce some reduction in weight. However, it is almost always necessary to administer a suitable weight-reducing diet and, in patients with a low basal metabolism, a dose of thyroid sufficient to raise the rate to normal.

Undescended Testes

Observations of the last few years by many workers appear to indicate that failure of descent of the testis may be caused in two ways:

By lack of normal stimulation which is necessary for descent.

By anatomic abnormalities of any of the parts involved in descent.

The hormonal factors involved in descent are not clearly understood. The influence of the anterior pituitary-like principle and its high concentration in the urine of pregnant women suggest that it may play some rôle normally in the descent of the testis during fetal life. We have been unable to corroborate the high incidence of successful results reported by many observers in the glandular therapy of undescended testes (60 per cent on the average). We have, in fact, been able to produce descent in only 20 per cent of all the cases and in only 27 per cent of those in patients under sixteen years of age.[7] The difference between our results and those of most observers may be accounted for in part by our exclusion, except in the beginning of the study, of all testes of the migratory or retracted types.

Our observations have led us to conclude that the anterior pituitary-like principle of pregnancy urine causes descent only of those testes not retained by mechanical factors. The same testes which descend as a result of treatment would probably descend at the time of puberty without treatment. If no more is accomplished with treatment in young boys than is accomplished by natural processes at a later age, then we must inquire whether the treatment is worthwhile. The crux of the problem is whether a testis made to descend at an early age with treatment is more likely to be normal than one which descends later without treatment. Since the testis normally descends into the scrotum during the last month of fetal life and since it can not function normally unless it is in the scrotum, it appears probable that in true cryptorchidism the testis should be made to descend at the earliest possible age.

The advantages of glandular treatment are:

It produces descent in some patients.

It makes it possible to determine at an early age in what cases descent is prevented by mechanical factors necessitating operative interference.

By enlarging the parts involved, it appears to facilitate subsequent operative procedures.

If treatment is properly carried out, it does not appear to produce any harmful effects, but it should be emphasized that little is known about the influence of premature stimulation with this material on the function of the testis after puberty. If the treatment is carried too far, excessive genital growth may result, giving rise to a condition simulating premature puberty. The material of choice is the anterior pituitary-like principle of pregnancy urine, previously referred to. This acts by stimulating the interstitial cells of the testis to produce more male sex hormone. The same result may be produced by the administration of male sex hormone itself, but since, as already pointed out, this may injure the normal testis, the stimulation type of therapy is to be preferred.

The treatment should probably be started at the earliest age at which operation is feasible if treatment is not effective. Just what this age is is a matter for debate.

It can certainly be carried out as early as the age of three years. The dose in most young boys varies from 100 to 1000 rat units daily for a period of from two to six months. If descent occurs, the treatment may be discontinued. In successful cases this usually takes place within two months. If descent does not occur within this time, treatment should be continued until a moderate amount of genital growth occurs, care being taken to avoid excessive growth. If the testis still fails to descend, operative procedures should be resorted to at once. If any delay ensues between the time that glandular therapy is discontinued and operative procedures started, some regression may take place in the size of the genitalia, thereby increasing the difficulty of operation. In the majority of cases, ideal treatment, therefore, involves the intelligent combination of medical and surgical measures. In some instances in which difficulty is encountered in bringing the testis to a sufficiently low level at the time of operation, glandular therapy may be valuable in the postoperative period.

Summary

Hypogenitalism may be primary or secondary in type. The primary type is seen after castration, after destruction of the testis by inflammation or trauma, and following lack of development, sometimes associated with bilateral failure of descent from the abdominal cavity. The secondary type is seen in patients with hypopituitarism including the Fröhlich syndrome, and in some patients with undescended testes.

In primary hypogenitalism stimulation therapy with male sex hormone (testosterone propionate) is indicated, and in the secondary type substitution therapy with suitable gonadotropic principles.

In doses of 50.0 mgm. per day testosterone propionate produces striking improvement in eunuch and eunuchoid individuals. It may also produce marked improvement in certain cases of the male climacteric associated with waning testicular function, but is of no value in benign prostatic hypertrophy.

In cases of impotence associated with decrease in testicular function, improvement may be produced either with stimulation or substitution therapy depending upon the capacity of the testis to respond. The problem of impotence is a complex one and care must be taken to exclude psychic causes.

In patients with the Fröhlich syndrome, striking improvement may be produced by the use of large doses of gonadotropic material from the urine of pregnant women. This material is also of value in the treatment of undescended testes. It may produce descent or may aid subsequent operative procedures by enlarging the parts involved. Patients receiving this form of treatment must be followed with great care in order to avoid the production of excessive genital growth.

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THE B_2 COMPLEX

In the field of the vitamins, the B_2 complex remains an outstanding challenge to scientists. The fact that the term "complex" still is applied to the B group is sufficient evidence that its complexities have not as yet been clarified. Nevertheless, in the routine practice of medicine, it generally is not realized that the ramifications of this group of vitamins are so widespread in their effects on human metabolism that only the surface has been scratched; and it is all too frequent that vitamin B therapy is prescribed with no regard to the action of its various components. This is largely the result of the grouping of the B factors under the term "vitamin B," even though there is no chemical relationship among them and their physiologic actions are different. Quoting Dameshek and Myerson[1] "the situation in regard to recognition and purification of the various factors of the B_2 complex shows such rapid change that a publication of even a year ago is now outdated."

B_1, or thiamin chloride, has been isolated in pure form and its antiberiberi effect definitely established. Riboflavin, or lactoflavin, commonly known as vitamin B_2, has been chemically identified and constitutes an important component in the oxygen reduction mechanism of the body cells. Its deficiency in the body may result in an erosion of the mucous membrane and a cracking of the squamous epithelium at the corners of the mouth,[2] and in experimental animals its deficiency will cause growth disturbances, yellow liver, and cataract. Deficiency of the nicotinic acid in this B group has been established as the main cause of pellagra,[3] and its chemical formula is also established. But of the other factors in the complex, B_3, B_4, B_5, and B_6 identified by Gyorgy,[4] and the filtrate and W factors, but little is known. Besides these, others that may or may not have a vitamin activity, factors such as choline and the gray-hair preventive factor of Lunde and Kringstad are as yet undetermined in regard to their need and their therapeutic value.

For the clinician, therefore, it would seem that, for the present at least, treatment of vitamin B deficiencies would be best carried out by giving the patient the entire B complex, instead of only the known factors whose potency has more or less been determined. These latter can be added in the required amounts.—*New York State Journal of Medicine*, May, 1940.

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EDITORIAL

INFLUENZA

■ The warning by medical columnists that an epidemic of influenza may be expected this winter should awaken more than a passing interest by the physician in spite of the tremendous tension of a war-torn world.

Last winter, particularly in the South, there was a marked increase in the cases of influenza reported. A review of the 1889-1892 and 1918-1920 pandemics provides some basis for expecting a second wave here this coming winter. If this increase of last year was a first wave then this coming second wave will hit with more severity in a wider scope.

Since 1918 we have come to accept the etiology of influenza as a filterable virus. In spite of the intensive and splendid research we are still in some doubt as to the identity of this virus or these viruses, since it is believed by certain research men that there is not a common offending virus.

The usual warning, the scattered case, is often too mild to occasion much alarm and is frequently ignored until the multiplicity of contacts bring on the sudden catastrophe of a major epidemic. The very mildness of the initial cases and the short incubation period are important factors in this tidal wave which almost threw the country into a panic in the years of the last war.

We have as yet no satisfactory vaccine or drug therapy and most of the success in preventing a cataclysm must lie in preventive measures. Urging the patient to seek isolation early, which is best accomplished by making him a bed patient, may break this malicious chain of infective contacts.

The discovery of sulfanilamide and its related compounds may have opened the field of chemotherapy which will modify the attack, but until then, the attitude of the physician must be that of a health officer in urging quarantine to the early cases which he sees.

TELL THEM

■ One of the major nuisances of the medical profession is the indiscriminate use of the title "Doctor" by various technicians, cultists and practitioners of limited branches of the healing art who have not attempted to satisfy the usually accepted amount of education to deserve the use of the title, Doctor.

One solution was made the topic of an editorial in The Journal recently and that suggestion may go a long way to aid. It is pleasing, at this time, to note that the Michigan State Board of Registration in Medicine through its secretary, J. Earl McIntyre, M.D., has been carrying on a quiet but persistent campaign to erradicate some of the obnoxious offenders. This has, in the main, been done through presenting the several opinions of attorneys general to the various agencies which are the media through which the use of the title is made. From copies of the correspondence between newspapers and telephone companies and the Board, the response has been gratifying.

In the State of Michigan it is clearly illegal for optometrists, chiropractors and naturopaths to call themselves doctors without qualification. If your local newspaper or telephone company is acquainted with this fact and if it is a medium of a higher type, coöperation will be easily obtained. Only a few desire to evade the intent of the law if they are acquainted with the facts. Tell them!

HELP FROM THE DRUGGISTS

■ A liaison recently effected with the Michigan State Pharmaceutical Association seems of far greater value than would be indicated by the comment it received. Drs. C. K. Valade and R. S. Breakey of the Syphilis Control Committee of the Michigan State Medical Society obtained from the convention group a splendid resolution of coöperation with the Michigan State Medical Society in the handling of venereal disease.

Dr. Valade speaking on the subject, "Venereal Disease Control As It Affects Pharmacy" presented a simple, straight-forward, honest exposition of the pharmacist's part in this program to erradicate syphilis and gonorrhea. The reaction of the association fully demonstrated the high calibre of its members and its interest in maintaining and advancing coöperation with the phy-

sicians. They adopted a seven-point resolution which is fully worth re-reading:

WHEREAS, in our desire to coöperate with the State Medical Society

BE IT RESOLVED that the Michigan State Pharmaceutical Association urges all its members to assist the health and welfare forces in the community in the conquest of Syphilis and Gonorrhea by making the following seven principal contributions:

First, Don't diagnose.

Second, Don't prescribe.

Third, Refer patients to the physician.

Fourth, Don't sell patent remedies for self-treatment of venereal diseases.

Fifth, Don't sell defective prophylactics.

Sixth, Distribute informational literature obtainable from health departments concerning syphilis and gonorrhea.

Seventh, For the Michigan State Pharmaceutical Association to give valued help as a body of professional men.

It is safe to say that other groups interested in protecting the health of the people are anxious to offer coöperation in any of our programs. The main requirement is that the information be offered to them in like manner and the legitimate forces which purvey health may be consolidated against the unscrupulous cults, irregulars and their parasites.

The Syphilis Control Committee has set an example for similar committees to follow.

NATIONAL PHYSICIANS COMMITTEE

■ THE National Physicians Committee has been sponsoring some very excellent medical publicity through an advertising campaign paid for by local physicians or allied interested stores or individuals. This is the type of work which will be our mainstay in interesting the public in the dangers of state controlled medicine and in the necessity of preserving our individual liberties.

If the Committee does nothing else but this it will have been well worth its organization. However, the extent of their service has gone far beyond this contribution, and its useful contacts with other groups and individuals may establish the balance necessary for our continued medical freedom.

FREE—

■ DO YOU want a concise, authentic, handy pamphlet on "Immunization and Diagnostic Procedures?" It will not cost you a cent. If you have not already received it you will shortly. The Michigan Department of Health is sending it to you and it has been approved by the Academy of Pediatrics (Michigan Branch), by the Michigan State Medical Society and, of course, by the Department of Health.

Included with the pamphlet you will find a sample immunization card which will be furnished you to give to each patient as a permanent record of his protection against contagious disease.

Every physician should be a health officer.

YOUR NEW PRESIDENT

Paul R. Urmston, of Bay City, known to his many friends as "Pru," became President of the Michigan State Medical Society at the annual meeting in Detroit, succeeding Burton R. Corbus. For many years Dr. Urmston has played a most important part in the Executive Committee of the Council of the Michigan State Medical Society. Afraid of no one, possessed of his proven faith in the profession and willingness to sacrifice his personal enjoyment for the betterment of the Michigan State Medical Society, he will undoubtedly be one of the most popular Presidents the society has ever had. His ability to appreciate every angle of a problem and every difference of opinion, and yet retain the courage of his convictions, which is sufficient to make decisive changes when necessary, prophesies well for the advance of the society during the next year. His selection of committees was so well done that there was not a single objection from the Council to the entire list of one hundred thirty-six committeemen who will help carry on the work of the Michigan State Medical Society for the coming year.

IN THESE HANDS

At the meeting of the House of Delegates in September Henry R. Carstens of Detroit was elected President-elect after a most successful year as Chairman of the Council and a number of years as a member of that body. Among his many and varied types of leadership in the pro-

fession it is of particular interest that he is Governor of the American College of Physicians, for the State of Michigan. He has served on the Council of the Wayne County Medical Society, and been its President. He is the President of the Michigan Medical Service and possesses an enviable reputation as an internist.

His fellow Councilor from Wayne County, A. S. Brunk, has been advanced from Vice Chairman to Chairman of the Council to succeed Dr. Carstens. He is also an ex-President of Wayne County Medical Society and his sound views on the practice of medicine have won him the respect of all his colleagues.

Howard H. Cummings, of Ann Arbor, who has been Chairman of the County Societies Committee, has been advanced to Vice Chairman of the Council. His cultural attainments and an unswerving faith in his profession and its members have turned his natural executive abilities into an invaluable aid to the Michigan State Medical Society.

Vernor Moore of Grand Rapids was continued as Chairman of the Finance Committee. This



Paul R. Urmston, M.D., Bay City
President, 1940-41



Henry R. Carstens, M.D., Detroit
President-Elect



A. S. Brunk, M.D., Detroit
Chairman of the Council



H. H. Cummings, M.D., Ann Arbor
Vice-Chairman of the Council



Vernor Moore, M.D., Grand Rapids, Chairman of the Finance Committee



Wilfrid Haughey, M.D., Battle Creek, Chairman of the Publications Committee



E. F. Sladek, M.D., Traverse City, Chairman of the County Societies Committee



Otto O. Beck, M.D., Birmingham, Councilor, Fifteenth District



Philip Riley, M.D., Jackson, Councilor, Second District



C. E. Umphrey, M.D., Detroit, Councilor, First District



Oscar D. Stryker, M.D., Fremont, Speaker of the House of Delegates



James J. O'Meara, M.D., Jackson, Vice-Speaker of the House of Delegates

never-ceasing watchdog of the treasury has been worth a great deal to the Society.

Wilfrid Haughey of Battle Creek, who has battled unceasingly against political and semi-political forces which attack our profession, has been re-named Chairman of the Publications Committee.

E. S. Sladek of Traverse City who was elected to the Council in 1937 had been the active secretary of the Grand Traverse County Society for a number of years and his intelligent consistent work singled him out as Councilor of the Ninth District. Continuing this type of leadership in the Council his qualifications were recognized by his colleagues and they unanimously elected him Chairman of the Committee on County Societies to succeed Dr. Cummings. The Council feels that he will be of great worth on the Executive Committee during this coming important year.

These five men together with the Speaker of the House of Delegates make up the Executive Committee of the Council which continues the arduous and all-important work of directing the work of the Michigan State Medical Society between meetings of the whole Council or of the House of Delegates. Our profession should indeed be safe in the hands of such outstanding men as these. Each man is organization-minded, hard-working and a leader in the profession.

Oscar D. Stryker, re-elected Speaker of the House of Delegates, was graduated from Calvin College with the degree of A.B. and he obtained his M.D. from Northwestern University. He spent an interneship at Grace Hospital, Detroit. Since 1929, he has been in general practice in Fremont. Dr. Stryker has been very active in civic affairs in Fremont, having served three terms as Mayor of the city and also as a member of the board of directors of the Chamber of Commerce. Dr. Stryker's able handling of the past session of the House and his splendid and faithful record as a member of the Executive Committee of the Council were outstanding.

James J. O'Meara of Jackson was reëlected Vice Speaker of the House of Delegates. Dr. O'Meara attended the University of Michigan and Northwestern University, graduating from the latter in 1911, after which he spent his interneship in Oak Park Hospital, Chicago. He began practice in Jackson in 1912, spent 1918-1919 in the Army. He returned to Jackson, where he has been in practice ever since. He is on the staff of Mercy Hospital and W. A. Foote Memorial Hospital.

NEW COUNCILORS

In the Third District, Wilfrid Haughey, of Battle Creek was reëlected to succeed himself. In the Fifteenth District, Otto O. Beck, who had been appointed to fill out the unexpired term of George Sherman, was reëlected to succeed himself. In the Sixteenth District, A. S. Brunk of Detroit was reëlected to succeed himself. In the Second District J. Earl McIntyre found that his duties as Secretary of the Michigan State Board of Registration took too much of his time and he refused to become "a third termite." An old worker of the Michigan State Medical Society was returned in the person of Philip Riley of Jackson who served two years as Vice Speaker and two years as Speaker of the House of Delegates. He will undoubtedly provide the Second District with able direction and representation. Due to the resignation of Henry Carstens from the Council, C. E. Umphrey of Detroit was elected in his place. Dr. Umphrey, though a new-comer to the Council, is no stranger to the activities of organized medicine. He has been one of the leaders of the profession in Wayne County and has been very active in the House of Delegates for many years. His professional and cultural attainments are such that he is being drafted for service in organized medicine. These qualities, combined with his pleasing personality, indicate that the wider spread of his services will be of increased worth to the profession. The state profession is indeed in good hands.

WAR DEPARTMENT
ARMY MEDICAL LIBRARY
WASHINGTON, D. C.

October 21, 1940.

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President's Page

Your Medical Preparedness Questionnaire

IN ASKING every physician to send in a Preparedness Questionnaire, the American Medical Association is performing the task that rightfully belongs to the Profession, and not to some governmental agency.

Mistakes made in the last World War, such as depleting whole counties of doctors, will not be repeated—if all physicians will coöperate in mailing their Questionnaires to Chicago.

The medical profession will know what physicians are best suited to enter military service, to teach, to stay in practice, and to offer aid in the very essential civilian service, such as Industrial Health.

The distinct advantage to each physician will come from proper classification, as he will be assured of careful consideration of his family obligations, the need for his services in his own community, and his personal fitness for particular service.

Send in your Preparedness Questionnaire today. Let the medical profession be its own judge in Medical Preparedness.



President, Michigan State Medical Society.

MICHIGAN MEDICAL SERVICE

PROMPT payments to doctors for services rendered is one of the advantages of the medical service plan. However, late or incomplete reports make it impossible for M.M.S. to pay doctors promptly. One of the chief problems in the first several months of operation has been the failure on the part of physicians to send *Monthly* Service Reports promptly or to send completed reports. It will be to the advantage of all concerned—the patient, the doctor and the medical service plan—if doctors and their office assistants will become better acquainted with the procedures for billing Michigan Medical Service for services rendered subscribers.

Billing by Doctors

The medical service plan requires only a minimum of paper-work. First, the doctor sends a short Initial Service Report to verify that the patient is in good standing and entitled to benefits for the services requested. Second, a Monthly Service Report itemizing the services rendered is sent to Michigan Medical Service as the bill for payment.

When the patient identifies himself as a subscriber to Michigan Medical Service by presenting his Identification Card or his Certificate, it is necessary for the doctor to know whether the subscriber is entitled (a) to full services of the Medical Service Plan or (b) to the partial services of the Surgical Benefit Plan. Hence, it is of real importance for the doctor to know the benefits and provisions of both plans. If there is any doubt in the doctor's mind as to whether or not the service would be a benefit under Michigan Medical Service, the Initial Service Report indicating the services to be rendered will bring a prompt notice from Michigan Medical Service whenever services requested are not properly benefits under either plan.

At the completion of services, but *not later than the end of each month,* the Monthly Service Report should be sent to Detroit for the attention of the Medical Advisory Board. To avoid delay in the approval of this bill for services, all information requested should be filled in as completely as possible. The Medical Advisory Board will be assisted greatly if the doctor sending the report will indicate the amount of special services he has rendered such as the extent of lacerations sutured; the location, size and type of tumor or cyst removed; the particular type of operation performed (Sturmdorf, Baldy-Webster, Caldwell-Luc); and the kind of x-ray (chest, stereoscopic). A revised Monthly Service Report embodying many improvements gained by actual experience is now ready for use and will make reporting even more simple for the doctor.

After the completed Monthly Service Report

MICHIGAN MEDICAL SERVICE REGISTRATION HONOR ROLL

(As of October 10, 1940)

100 Per Cent

Barry
Mason

90 to 99 Per Cent

Manistee
Menominee
Monroe
Newaygo
Tuscola

80 to 89 Per Cent

Allegan
Bay-Arenac-Iosco-Gladwin
Calhoun
Chippewa-Mackinac
Clinton
Delta-Schoolcraft
Dickinson-Iron
Gratiot-Isabella-Clare
Hillsdale
Ingham
Kent
Lenawee
Mecosta-Osceola
Midland
Oceana
Ontonagon
Saginaw
St. Joseph

75 to 79 Per Cent

Branch
Eaton
Lapeer
Muskegon
Northern Michigan
North Central Michigan
Ottawa
Wexford-Kalkaska-Missaukee

is sent to Michigan Medical Service, the doctor should make certain that a bill is not also sent by his office to the patient. The sending of a bill to the patient causes confusion. If the patient is a subscriber to Michigan Medical Service with an income below the limit of $2,000 for the Individual Certificate or $2,500 for Husband and Wife or Family Certificate, no bill should be sent to the patient for services, which are to be paid in full by Michigan Medical Service. However, in the event the patient is a subscriber whose income is above the limit, the statement which is returned with the check by Michigan Medical Service will indicate that the payment is to apply as a credit. The doctor may then send a bill to the patient for the difference, if any, between the payment received from Michigan Medical Service and the charge which he would customarily make to the patient.

Annual Meeting of Michigan Medical Service

The first Annual Meeting of the members of the corporation of Michigan Medical Service was held Wednesday, September 25, 1940, in Detroit. A full report of the operation of Michigan Medical Service was presented to the members who are the Delegates of the Michigan State Medical Society and the Board of Directors of Michigan Medical Service. Members of the corporation were generous in their praise of the work done by the officers and committees. An enlarged Board of Directors was elected and all officers and members of the several committees were re-elected.

Statistics

As of September 30, 1940, 69,316 subscribers were enrolled. A total of 3,257 doctors of medicine are registered with Michigan Medical Service, representing three-fourths of the practitioners in the state. A total of 3,562 patients received service in the first seven months, with benefits to doctors in excess of $145,000. One out of every six physicians in Michigan has been paid through M.M.S. From the beginning, the full schedule of benefits has been paid to co-operating physicians. The operation of M.M.S. has been accomplished with a minimum of expenditure for administration expenses.

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MICHIGAN STATE MEDICAL SOCIETY

Seventy-fifth Annual Meeting

Proceedings of House of Delegates

Book-Cadillac Hotel, Detroit, Michigan

September 24, 1940

Tuesday Morning Session

September 24, 1940

The First Session of the 75th Annual Meeting of the House of Delegates of the Michigan State Medical Society, held in the Grand Ball Room of the Book-Cadillac Hotel, Detroit, Michigan, convened at nine twenty-five o'clock, O. D. Stryker, M.D., of Fremont, the Speaker, presiding.

THE SPEAKER: The meeting will please come to order.

Is the Chairman of the Committee on Credentials ready to report?

E. O. Foss, M.D.: There are 86 accredited delegates here out of a possible 107.

THE SPEAKER: That constitutes a quorum, so the First Session of the House of Delegates is now officially open.

RECORD OF ATTENDANCE

	COUNTY	DELEGATE	Session 1st	2nd	3rd
1.	Allegan	O. H. Stuck	x	x	x
2.	Alpena-Alcona-Presque Isle	W. E. Nesbitt	x	x	x
3.	Barry	R. B. Harkness	x	x	x
4.	Bay-Arenac-Iosco-Gladwin	C. L. Hess	x	x	x
		Fred Drummond	x	x	—
5.	Berrien	Wm. Ellet	x	x	x
6.	Branch	R. L. Wade	x	x	x
7.	Calhoun	A. T. Hafford	x	x	x
		Harvey Hansen	x	x	x
8.	Cass	S. L. Loupee	x	x	x
9.	Clinton	Not represented			
10.	Chippewa-Mackinac	B. T. Montgomery	x	x	x
11.	Delta-Schoolcraft	Not represented			
12.	Dickinson-Iron	W. H. Alexander	x	x	x
13.	Eaton	Paul Engle	x	x	x
14.	Genesee	F. E. Reeder	x	x	x
		Geo. J. Curry	x	x	x
		D. R. Brasie	x	x	x
		Henry Cook	x	x	x
15.	Gogebic	Not represented			
16.	Grand Traverse-Leelanau-Benzie	B. B. Bushong	x	x	x
17.	Gratiot-Isabella-Clare	M. G. Becker	x	x	x
18.	Hillsdale	Luther W. Day	x	x	x
19.	Houghton-Keweenaw-Baraga	J. H. Kirton	x	x	x
20.	Huron-Sanilac	C. W. Oakes	x	x	—
21.	Ingham	C. F. DeVries	x	x	x
		R. S. Breakey	x	x	x
		T. I. Bauer	x	x	x
22.	Ionia-Montcalm	W. L. Bird			
23.	Jackson	P. A. Riley	x	x	x
		J. J. O'Meara	x	x	x
24.	Kalamazoo	F. M. Doyle	x	x	—
		L. W. Gerstner	x	x	x
25.	Kent	A. V. Wenger	x	x	x
		C. F. Snapp	x	x	x
		A. B. Smith	x	x	x
		G. H. Southwick	x	x	x
		P. W. Kniskern	x	x	x
26.	Lapeer	D. J. O'Brien	x	x	x
27.	Lenawee	A. W. Chase	x	x	—
28.	Livingston	D. C. Stephens	x	x	x
29.	Luce	Henry E. Perry	x	x	x
30.	Macomb	D. Bruce Wiley	x	x	x
31.	Manistee	E. A. Oakes	x	x	x
32.	Marquette-Alger	V. Vandeventer	x	x	x
33.	Mason	Not represented			
34.	Mecosta-Osceola-Lake	G. H. Yeo	x	x	x
35.	Menominee	H. T. Sethney	x	x	—
36.	Monroe	D. C. Denman	x	x	x
37.	Midland	Ed. H. Meisel	x	x	x
38.	Muskegon	E. O. Foss	x	x	x
		E. N. D'Alcorn	x	x	x
39.	Newaygo	O. D. Stryker	x	x	x
40.	No. Michigan (Antrim, Cheboygan, Emmet, Charlevoix)	Wm. S. Conway	x	x	
41.	Oakland	Richard Olsen	x	x	x
		C. T. Ekelund	x	x	x
		Geo. A. Sherman	x	x	x
42.	Oceana	Merle G. Wood	x	x	—
43.	O.M.C.O.R.O.	C. R. Keyport	x	x	x
44.	Ontonagon	Wm. F. Strong	x	x	x
45.	Ottawa	A. E. Stickley	x	x	x
46.	Saginaw	C. E. Toshach	x	x	x
		S. A. Sheldon	x	x	x
47.	St. Clair	A. L. Callery	x	x	x
48.	Shiawassee	A. L. Arnold, Jr.	x	x	x
49.	St. Joseph	R. A. Springer	x	x	x
50.	Tuscola	T. E. Hoffman	x	x	x
51.	Van Buren	E. Terwilliger	x	x	x
52.	Washtenaw	J. A. Wessinger	x	x	x
		Dean W. Myers	x	x	x
		L. J. Johnson	x	x	x
53.	Wayne	R. H. Pino	x	x	x
		R. L. Novy	x	x	x
		E. D. Spaulding	x	x	x
		J. M. Robb	x	x	x
		T. K. Gruber	x	x	x
		J. A. Kasper	—	x	x
		H. F. Dibble	—	x	x
		A. E. Catherwood	x	x	x
		W. B. Cooksey	x	x	—
		Wm. J. Stapleton, Jr.	x	x	x
		R. M. McKean	x	x	x
		Henry A. Luce	x	x	x
		R. C. Jamieson	x	x	—
		C. S. Kennedy	x	x	—
		G. C. Penberthy	x	x	x
		L. J. Hirschman	x	x	x
		G. S. Bates	x	x	x
		C. E. Umphrey	x	x	x
		C. E. Dutchess	x	x	x
		H. W. Plaggemeyer	x	x	—
		C. E. Simpson	x	x	x
		Allan McDonald	x	x	x
		H. J. Kullman	x	x	x
		P. L. Ledwidge	x	x	x
		C. K. Hasley	x	x	x
		L. W. Hull	x	x	x
		A. F. Jennings	x	x	x
		G. L. McClellan	x	x	x
		C. F. Vale	x	x	x
		L. T. Henderson	x	x	x
		Wm. S. Reveno	x	x	—
		C. K. Valade	x	x	x
		S. W. Insley	x	x	x
		C. F. Brunk	x	x	x
		R. V. Walker	x	x	x
		H. L. Morris	x	x	x
54.	Wexford	Not represented			

The Speaker read the list of the Reference Committees, as printed in the Handbook.

J. J. O'Meara, M.D., of Jackson, Vice Speaker, took the chair.

I. Speaker's Address

Mr. Vice Speaker, Members of the House of Delegates, and Officers of the Michigan State Medical Society:

It is a great honor to have the privilege of presiding over this important meeting, our Diamond Ann versary, of the House of Delegates today.

I wish to welcome you all to this meeting. Many of you have had the opportunity of being delegates for many sessions, but for others of you this is your first meeting. I am sure that the proceedings and deliberations of this session will be an inspiration to you.

The opportunity we have of serving organized medicine must be looked upon as a rare privilege, and one we should cherish to the utmost. Here we have representative government and democracy at its best, and I have no doubt but that by the end of this meeting we will have the satisfaction of a work well done and the knowledge that the Michigan State Medical Society will continue in its leadership in American medical policies. That it does continue to do so depends not so much upon its officers, or the council, but the responsibil ty is directly on you, for you are the chosen representatives of the rank and file of society membership.

At the 74th Annual Meeting held last year certain definite matters were referred by the House of Delegates to the Council for action. I wish to report on these matters at this time. In all things the Council was most coöperative with the wishes of the House and did their utmost at all times to follow your instructions.

The House of Delegates accepted with thanks the report of the Council on Michigan Medical Service and empowered the Council to complete the present plan and place it in operation. What has been done in this matter is, I know, common knowledge to all of you present as it is presented to you in the "Report of the Council"; however, I cannot help but take this opportunity of reminding you of the great success which has already been met with in this plan. By September first there were 64,449 subscribers w th 44 different groups enrolled. During the first 6 months services were provided for more than 3,000 subscribers, with payments to doctors amounting to $125,000. The plan has attracted a great deal of favorable attention from other progressive state societies and is being used as a model in the formation of plans of their own. The Speaker at this t me wishes to pay tribute to the Board of Directors and especially the Executive Committee of Michigan Medical Service for their untiring efforts in its development. It was necessary for them, again especially the Executive Comm ttee, to meet two or three times a week during the first part of the formation in order to iron out all legal and administrative details so that the plan could be in operation as soon as possible.

The House of Delegates also instructed the Council to make a detailed study as to the need for a fund for the a d of widows and orphans of deceased members. Wo k has been done on this and it is expected that a report of progress will be made during this session.

At the meeting of the House of Delegates of the American Medical Association held in New York during June of this year a Committee on Medical preparedness was establ shed and in accord with this program Dr. B. R. Corbus was selected in charge of medical preparedness in the State of Michigan. It has been felt by medical as well as lay leaders, especially in view of what happened to countries with inadequate defenses who have been over-run by power-mad dictators, that an adequate preparedness is our best assurance of keeping out of European troubles and keeping such dictators from attacking our democratic institutions. I am sure that this House of Delegates, representing the medical profession of Michigan, will give this committee its unqualified support so that the sense of the resolution of Dr. Ralph Pino offered at the 1939 session may still guide us in our actions.

To many of us the question often arises as to the state of medical practice today, both nationally and as it affects us in our own problems. Those of you who were fortunate enough to attend the 1935 session of the House of Delegates held at Sault Sainte Marie heard Speaker Henry Luce give "The Clinical Viewpoint of a Very Sick Patient." Certainly, since that time the Michigan State Medical Society has done much to improve the condition of this patient, the practice of med cine, and the patient is now enjoying a stormy but satisfactory convalescence. What has been accomplished, however. must not in any way give us a false feeling of security or cause us to let up in any way in our efforts in further improving his condition. Changing times and c rcumstances bring up new foes and forces which will do their utmost to bring this patient into a state of relapse. It is to be hoped that after January of 1941 our patient's recovery will be mo e complete. This expected recovery depends upon the coöperation of you and your friends, in order to insure that friends of medicine and our democratic system of practice are put into office at the next election. Certainly those who have consistently worked against us and the welfare of the people of our state are not worthy of our support.

May I remind you again that we are the delegated persons to work with one another for the progress of organized medicine in our state. Therefore in our discussions today, it is hoped that each member may offer such constructive criticism as may be in his power to suggest or present.

The Vice Speaker: The Speaker's address will be referred to the Committee on Officers' Reports.

Dr. Stryker resumed the chair.

The Speaker: The next item of business is the President's Address. Burton R. Corbus, M.D.

II. President's Address

Members of the House of Delegates, Michigan State Medical Soc ety:

An editorial in The Journal of the Michigan State Medical Society five years ago, written at the conclusion of some thirteen years of continuous service as an official of this Society, estimated the activities of the Society over a period of years, and suggested some of the lines which might be followed in the future. This privilege is one that comes to me again as your retiring pres dent. In this editorial I expressed my appreciation of the opportunity that has been accorded me to contribute a mite to the development of organized medicine in this state. I am most appreciative of this further honor and the opportunity to aga n serve you.

Michigan Medical Service

In estimating the activities of this past year I have no difficulty in placing the initiation of Michigan Medical Service as foremost in importance. You do not need to be reminded of the many years of discussion and planning, and the arguments pro and con which necessarily preceded the time when it finally went into operation. That this prepayment plan for medical service was something of a sociological as well as an economic experiment, was fully recognized by this House of Delegates when it d rected its officers to proceed with the plan, and I congratulate you on your foresight and your courage. I know that you could not possibly have anticipated the mountain of work that your action placed upon the shoulders of your officers and your committee.

You asked that a plan might be devised to provide adequate professional care for the low income group, retaining the free choice of physician, and those fundamental and traditional ethical aspects which are necessary in the practice of medicine if medicine is to remain an honorable profession. It was recognized that the charge for professional service must be within the possibilities of the lower income group, and yet high enough to satisfy the reasonable requirements of the attending physician. Your committee had no satisfactory trail to follow. No existing plan conformed to your desires. Working in a new field it is remarkable that the product has been so satisfactory. There probably are some snares and pitfalls within the plan as it now exists, but Michigan Medical Service is confident that they can be safely taken care of. So far Michigan Medical Service is on safe ground. Upward of 70,000 individuals are now getting either full or limited service, to the great satisfaction of both the patient and the doctor.

The mass of detail incident to the establishment of this plan was carried by just a few men, and I want to make special mention of them for their sacrifice in time and energy has been great. This is especially true of Doctor Carstens who, in addition to being chairman of the Council, carried the extra load of being chairman of the committee. He was ably assisted by his committee, Doctor Cummings, Doctor Haughey and Doctor Brunk, who met week after week in developing and getting the plan into operation. To them the thanks of this Society are due.

Committees

It has ever been my thought that there was a very special obligation for a physician to contribute his bit to the promotion of his profession. A few favored ones have the ability to make exceptional contributions to medical science. The contribution that most of us can make is to do our day's work well, and to help where we can to integrate the scientific knowledge into the day-by-day practice through the promotion of organized medicine. That the members of this Society desire to contribute is shown by the willingness of my appointees to serve on committees. Not a single man declined his appointment, and so far as I know, not a single man has failed to give of his best. I wish to take this occasion to thank the chairmen of every committee for the splendid work that they have done. On two occasions chairmen of committees went to Washington, at their own expense, in the interests of a committee activity. The results of this enthusiastic, loyal committee activity is shown well in the reports that will be presented to you.

The new committee on Heart and Degenerative Diseases, under the chairmanship of Doctor Herman H. Riecker, is commended for preparing a brochure, *"Uniform Classification of Heart Diseases,"* now in the press. The successful fight of Doctor Fred Miner, chairman of the Iodized Salt Committee, before the Drug and Food Division of the Federal Department of Health, is one of the high points in the service rendered during the year. Iodized salt will continue to be marketed and so labeled as to indicate its preventive value in the development of endemic goiter. The evaluation of the favorable results from the use of iodized salt in the diet of children has been a major activity of our Iodized Salt Committee. To those whose attention has not been called to it, it should be stated that health officials acknowledge it to be one of the outstanding prophylactic measures of modern times. There is many another committee which deserves special award. The Syphilis Control Committee, under Doctor Breakey, has to its credit a year of exceptional educational work, and the Industrial Health Committee, under Doctor Cook, deserves special mention for its work with the industries of the state. The Preventive Medicine Committee, under Doctor Geib, has maintained a valuable liaison with the State Department of Health. Active, as they have been now for many years, the Cancer Committee and the Maternal Health Committee have to their credit a year of many accomplishments. There is nothing that I need to say about the Committee on Postgraduate Education for you know, as well as I, that it sets a standard for postgraduate education in the country.

These are not the only committees which have fulfilled most excellently their obligations. Every committee has been active. Every chairman has done his work well, and to chairmen and committeemen alike, I express the appreciation of the Society and my very personal thanks for the part they have had in making this a most successful and productive year.

At your direction I invited representatives from the two medical schools to meet with a committee from this Society to discuss the matter of intern training and intern placement. Out of this meeting came a committee to be known as the Conference Committee on Prelicensure Education, with additional representation from the State Board of Registration and the Michigan Hospital Association.

Its first objective will be to develop a coöperative plan for intern training. The Committee recognizes the special advantages offered by some of the independent general hospitals. It also recognizes that the so-called teaching hospitals offer those special opportunities which fulfill the requirements for licensure by the specialty boards. It purposes to direct its efforts to working out some sort of a combined plan. I suggest that this committee be listed in THE JOURNAL, and that representatives from the Society be appointed to it, as in the case of the Joint Committee on Health Education.

Public Relations

"Not yet have we convinced the State," said one of our early presidents, "that our profession, unlike any other class in the community, is working against its own interest in striving for enactments which will prevent and cure disease." It has been many years since this was written, and today the public is but little more inclined to credit organized medicine with altruistic objectives. It recognizes, but it takes for granted, our efforts directed to lay education, to disease prevention, and to health projects of various sorts. It is expected of us that we shall be interested in all social betterment projects. A campaign of misrepresentation, even villification, directed against us by those who desire a form of social-political control of medicine, finds a public not unresponsive.

As far back as the sixteenth century government recognized the need for restrictive laws to control the practice of the healing art as a protection for its citizens against the charlatan and the incompetent. In so doing it unavoidably sets up a privileged class. There are benefits accruing to a privileged class. There are also responsibilities. That the Michigan State Medical Society has accepted these responsibilities, no one can possibly deny. Yet a privileged group is always a fair target at which to shoot, and this is to be met by a campaign of education. It should be our purpose to make every effort to acquaint the public with the objectives of the organization and in particular those activities which are operated for the public weal.

It should be an obligation for state and county officers to make frequent appearances before lay audiences to discuss medical, sociological and medical economic problems, many of them to be solved only by coöperation. The publicity associated with Michigan Medical Service has had a most favorable influence in establishing a friendlier relationship between this Society and the public.

It is interesting to note that the intelligent public is

coming to recognize more and more that our postgraduate plan has its inception in the desire of this Society to improve the efficiency of its members that the highest quality of medical care may be brought to the patient.

From a public relation standpoint it will be to our advantage to utilize to the utmost the facilities of the Michigan Joint Committee on Health Education, for we have an obligation to bring factual information on health subjects to the laity, which can be well met in this way.

Our history is one of all too frequent controversies within the Society and altercations with other organizations. It is a pleasure to note that in recent years the Society has shown a great willingness to coöperate with private and state agencies. There has been an especially fine and productive coöperation with the State Board of Health and the medical schools. Difficulties will arise from time to time and I regret the unpleasantness that has arisen this year between this Society and the Executive Office of the State. In the eyes of the uninformed public this may appear to be a controversy. As we see it, it is a protest against a situation which works an injustice to the crippled and afflicted child as well as his physician.

Your Membership Committee has been studying methods through which we might capture the interest of the young physician. As of today, the senior student or the young intern, knows little of the problems which are facing the medical profession or of those which will face him as an individual when he gets into practice. He has not had brought to him the advantages of medical organization. He has, so far, led a rather cloistered life. It should be our obligation to interest these men in the work of the Medical Society. It should be our obligation to make it possible for them to become affiliated early with the Society. This might well be done by some sort of a sliding scale of fees which would be gradually increased, not coming to full payment until the end of the fifth year after graduation. There are too many young men who would like to be members of the Society who hesitate for financial reasons. But this is not enough. We should develop a definite program directed to the Senior student and the intern in an effort to interest him in organized medicine. Certainly the least that we could do would be for your president to address a letter to every graduating student, inviting him to join the County Medical Society. I would like to see an arrangement made with the medical schools whereby representatives from this Society could appear from time to time, before the senior medical students for a discussion of certain phases of medical practice and medical economics not now placed before them. An additional advantage might accrue in that it would bring the Society and the faculty of the medical schools closer together. If some of the younger members of the faculties would attend such conferences, it would be to their advantage.

Your president recommends that this House of Delegates instruct the Council to make a special effort to interest the young graduate in organized medicine; that it authorize the Council to materially reduce the dues for this group, and that it recommend to county societies that they take like action.

I emphasize my predecessor's recommendation that this House give earnest consideration to the need of the establishment of some plan whereby the destitute doctor or his family may obtain, from time to time, some help from this organization.

This, in my opinion, should be a joint effort between the County and the State Society, both organizations sharing equally in the furnishing of such assistance.

The Journal

A new editor, Dr. Roy Holmes, industrious and interested, has brought to THE JOURNAL some innovations. I think you will approve THE JOURNAL's new dress and certain changes in its makeup.

The publication of THE JOURNAL presents a very special problem. It is important that THE JOURNAL present to its readers, month by month, a report of organizational activities. In this respect it must take on some of the characteristics of a trade organ. On the other hand emphasis must be placed on the scientific side. It is the outlet for the publication of competent, scientific articles coming from our membership, and it must interest and satisfy its readers. I feel that we need to have an expression of the views of the membership as to whether THE JOURNAL fully meets their requirements.

For economic reasons, the space allotted to scientific articles has been cut about one-third from previous years. That does not meet with my approval, though others may not agree with me. I would like to see every young man encouraged to write scientific articles, with the assurance that if those articles have merit, they will be published in our JOURNAL. At the moment Doctor Holmes is compelled to refuse much desirable material.

I might note that a small foundation in Grand Rapids has taken a very unique action. They have set aside certain sums of money, I think amounting to about $500 a year, perhaps more, for $100 prizes for the best published article coming from each of the three hospitals, and then certain other prizes for very special articles which are published. They require, in order for a hospital staff to be eligible, that at least three such articles be written and published. Now it gives you an idea of what lay people think of the advantage of writing and publishing articles. A man likes to see his articles in print, and probably the only outlet that many men have is THE JOURNAL of the Michigan State Medical Society.

I would not belittle the importance of maintaining in THE JOURNAL a record of the Society's activities. That is necessary, but I feel strongly that we could improve, and should emphasize the scientific character of THE JOURNAL.

I cannot speak too highly of the efficiency of Secretary Foster and our executive secretary, "Bill" Burns. Never have I seen such persistent industry. Today the Michigan State Medical Society, with its many interests, demands for its successful operation, the same qualifications for its executives as are required for a sizable corporation. In the person of each of our secretaries, we have these qualifications and I express here, for myself and for the Society, our grateful appreciation to them for work well done.

Twenty-five years ago, at our fiftieth anniversary, President Peterson similarly gave credit to our secretary at that time, Dr. Fred Warnshuis. It seems proper and just that I should, at this time, note that during his twenty-five years of service, Doctor Warnshuis contributed largely to the foundation upon which the present structure of our Society rests.

This Society has grown strong because many men, over many years, have given generously of their time and their strength, but never more generously than they have in recent years.

You and I are grateful and are appreciative of the especially productive work of this year. With a war on our doorstep, we have special need for our strength at this time. It will be a disturbing year for men's attentions are bound to be distracted from the scientific aspects of medicine and from their medical Society. War, even the preparation for war, necessitates regimentation of doctors as well as of fighting men, and the danger of permanent regimentation under these conditions, is great. Our State Committee on Medical Preparedness is coöperating with the American Medical Association and the Federal Government. We will do our part, both as individuals and as an organization, and we will make every effort to keep our organization

strong and ready to resist, as best we can, every effort to make permanent in peace time, governmental control which we admit is a necessary concomitant in war or in the preparation for war.

I am grateful to you, officers, committeemen, delegates, for your kindly coöperation and consideration. Many are the friendships that I have made amongst you. I shall miss you as you and your successors go forward making this Society a still better and stronger organization.

And now as you proceed to your deliberations there will be important decisions for you to make in matters of policy, in finances, in the choice of personnel to whom you will delegate the affairs of this Society until you again meet.

You carry a large responsibility and a one-day session is all too short for you to adequately meet it. You are the Society. Its aims and ambitions are yours to determine. Only if it adequately meets the needs and expresses the views of its membership, will it be successful.

May you meet these problems with clear vision, untrammeled by any consideration other than your desire to make this a better society, adequately fulfilling its obligations to its members and to the public. You are fortunate in having as your next president, the experienced, competent Dr. Paul Urmston. I wish for him and the Michigan State Medical Society, a most successful year.

THE SPEAKER: Thank you, Dr. Corbus. The address of Dr. Corbus will be referred to the Committee on Officers' Reports.

We will now have the address of the President-Elect, Paul R. Urmston, M.D.

III. President-Elect's Address

American Medicine Stands Indicted

Due to vacations, baseball, European wars and our plans for preparedness the average physician is apt to forget, thereby leaving one front in our defense against socialized medicine exposed. We must awaken to the fact that we are still on the defense.

There is an old political axiom: Now is the time for all men, good and true, to come to the aid of the party. As your incoming President I am now making an official call for all Doctors of Medicine, good and true, to rally in the defense of American Medicine.

Shall the practice of Medicine become a trade or a science?

Woe unto the ethics of Medicine, if it becomes a trade!

After due deliberations of the House of Delegates at two sessions, the trustees of the A.M.A. advocate the following Platform:

1. The establishment of an agency of the federal government under which shall be coördinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need, for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

These are the principles or the banner under which we will carry on our defense for the rights of American Medicine under our American Democracy. These should be adopted as the Michigan platform in the aid given to the A.M.A. in the defense of our citizenship rights. Our offense is the ballot.

Do you read the organization Section of the *A.M.A. Journal?*

Do you know about all the bills sent to Congress? Read this and your Michigan State JOURNAL to keep up with the trend of the times.

It seems that politicians are of the same opinion regardless of party, that Medicine must be trampled upon and be subservient to their wishes.

If we cannot convince the people of Michigan who are our patients that Medicine is a science (and every other State in the union does the same) we cannot influence our national representatives and the Supreme Court Justices that the regimentation of Medicine eventually but surely spells the fall of democracy.

Now for some medical problems in the State of Michigan.

Child Welfare

The annual convention of the American Legion was held in Bay City in August. Two days were devoted to the subject, Child Welfare. This headed all other activities. All interested organizations on this subject were invited to attend; federal appointees, social agencies, Judges of Probate, and others were present. The medical profession was well represented by the Child Welfare Committee of the Michigan State Medical Society, some of your officers, and many interested in the American Legion.

Dr. Whitaker of Detroit ably presented the aim of the Legion in caring for the children of Michigan which included both the Crippled and Afflicted Acts.

Dr. L. F. Foster presented the difficulties physicians have had trying to care for the children under the crippled and afflicted child laws of Michigan.

Trying to balance the budget (in the black) by our present administration has caused untold suffering and future expense.

To criticize and not produce something constructive we would fail to aid the Legion in solving this problem.

The following recommendations were presented to the Legion:

1. Increase the appropriations to a reasonable sum so that needed care is given to crippled and afflicted children, and cost fees are paid to physicians and hospitals.
2. Control intake and limit State care to the indigent and medically indigent by authorizing by law a thorough economic and medical investigation of every applicant.
3. All groups sincerely interested in unfortunate crippled and afflicted children should meet to devise a sound and permanent plan so that Michigan's crippled and afflicted child program will become the best rehabilitation program in the country.

Several organizations have started to revise these two acts and the Michigan State Medical Society has appointed or has asked physicians to serve with these agencies. The salvation of the unfortunate children

and their only hope is that through these groups will be evolved an Act that will meet the test of time. The Michigan State Medical Society hopes to aid and direct in this Ideal Act which will be fair to the children and the tax payers of Michigan.

I am not forgetting the much abused physicians who are caring for the afflicted without recompense.

Medical problems can only be solved by coördination of ideas between administration and the Michigan State Medical Society.

Welfare Laws

My last statement was made because our welfare laws have not accomplished all that is desired. This is because one paragraph is too well written, that is, *the free choice of physician.*

This part of the law is being evaded in several counties by their employing full-time county doctors or contracting with individual doctors. The law also provides the use of the city physician. This phase of the law is wrong, and ably demonstrates what will happen if we have socialized medicine.

In one of our large cities of this State we hope the investigation will show that the regimented physician cannot practice good medicine.

The people of Michigan should follow the trend of this investigation as this is what will happen to them under similar conditions. We are fortunate that the act provides a Doctor of Medicine on the State Board. This Board has interpreted the act fair and wisely. The inactivity of the county medical societies where this law is evaded jeopardizes the good results in other counties.

School Inspection

School inspection is another part of Child Welfare that is receiving National Study and is receiving definite attention in Michigan. The administration has appointed committees with medical representation to conduct this survey.

The problems that affect the medical societies are:

1. Pre-school examinations
2. Examination of interscholastic athletes
3. Examination of vision
4. Examination of hearing
5. Care of school injuries
6. Tests for tuberculosis
7. Prevention of communicable diseases

This raises the question who shall conduct these examinations:

1. A full-time salaried medical attendant
2. Part-time physician
3. Instruct the teachers how to screen children for apparent defects or diseases and, when found, refer them to the family physician

This latter maintains the patient-doctor relationship which is to be desired. No other physician is examining your patients. This is entirely a medical activity and must be solved by the medical profession.

School superintendents or school boards should not have the right to appoint other physicians to examine your patients but should coöperate with the county society in all medical matters.

Medical preparedness of the child up to twenty-one years for war. Congress has passed a bill for registration of the youth of America for military duty. How will the youth of today compare with the youth of the last war? Of the reecnt volunteer applicants 32 per cent were rejected. Are we to be held responsible for the physical and mental defects of the youth of today? If so we must care for the child from birth:

1. We must prevent blindness by ophthalmic neonatorum or by inherited syphilis.
2. We must preserve his hearing.
3. He is made immune by known method for communicable diseases.
4. By pre-school examinations we find his defects and are corrected before he enters school.
5. His diet should be regulated.
6. During his school period he has a physical examination every three years.

When he is twenty-one years old, if he continues in school, he is as near perfect as we can expect at the present period. How is this to be achieved? By registering the child at birth for military training. A complete family history accompanies his classification card through each grade. His habits, initiative, desires, adaptability, conduct and progress are entered on his card.

If at the end of his grade schooling he shows no desire or his progress is slow he should be sent to a vocational school. The recent call for trained tool and die makers and mechanics showed a shortage of trained men.

These vocational schools should give a complete training for services in factories or any mechanism required in war.

This is a much neglected part of our present system. This, as a part of his education, should be credited on his diploma.

His conduct outside of school hours must be regulated. If we are to become a military country, we must give this serious thought.

The Medical Corps

The House of Delegates of the American Medical Association passed a resolution and appointed a committee to coöperate with the Federal government to register all Doctors of Medicine in America.

A Medical Preparedness Committee is appointed in this State. You will hear much on this subject during this convention. My only thought on this subject is that we may eliminate many of the errors of the Medical Corps of the last war. The status of the Medical Corps should be raised.

All this would indicate that we have not accomplished much this year. Your council report shows the extraordinary progress of the year. These were last-minute problems.

Medical science cannot stand still. The United States of America is the only country left where it can still progress unhampered as a free institution. We shall maintain a free country. We shall also maintain our rights and freedom under the Constitution of the United States and the right to practice Medicine in the American way.

I am not a philosopher but I like this definition, "One who reduces the principles of philosophy to practice in the conduct of life." One who meets or regards all vicissitudes with calmness.

I am neither orator, writer nor a poet. I seek wisdom from those whose aim in life is for the interest of all. This wisdom I shall impart to you when it is for the good of Medicine and the rights of our patients. I have learned to obey and also to give orders but for those whom I have asked to serve, it is not a command but a duty to our fellow members.

If I were chosen on my past record to this honor, it was only with your help, for which I give due credit, and with the unity of all members we can solve the problem of the future.

We face a national election that may govern our future but we must meet this with the philosophy of the Stoic, that is, the wise man should be free from passions, unsubdued by joy or grief, willingly submissive to natural law.

Doctor, you should psychoanalyze yourself; also, read the code of ethics. Lastly, in the saying of a Greek Philosopher, "Know thyself."

THE SPEAKER: Thank you, Dr. Urmston. The address of Dr. Urmston will be referred to the Committee on Officers' Reports.

X. NEW BUSINESS

X-1. SCROLL PRESENTED TO PHILIP A. RILEY, M.D.

It is now my pleasure to call on Frank E. Reeder, M.D., of Flint.

FRANK E. REEDER, M.D.: Dr. Philip Riley, if you will rise, it is my privilege and my pleasure, in recognition of your long and faithful service as member and as speaker of this House of Delegates, to present you with this beautiful scroll, which I read:

To Philip A. Riley, M.D., Speaker of the House of Delegates, 1938-39, in recognition of his valuable services to the Michigan State Medical Society.
September 24, 1940

BURTON R. CORBUS, M.D.
President
L. FERNALD FOSTER, M.D.
Secretary

Dr. Reeder presented the scroll to Dr. Riley.

PHILIP A. RILEY, M.D.: Mr. Speaker, Dr. Reeder: Last Sunday morning, I heard Major Bowes make an inquiry of an orchestra leader. He said, "When you left Harvard, did you leave by invitation or by diploma?" Now, I have left by diploma. (*Laughter*)

I am not worthy of receiving any special honor from the Michigan State Medical Society. I had a good time doing any work that I did. When I came to this House of Delegates, I was just as green as the fields are out our way, and I have learned a lot. Probably the biggest thing I have learned in the House of Delegates is that all good fellows in the practice of medicine did not live in Jackson County. I thought they did. I have also learned how to evaluate the various emotions of different men. I have learned to distinguish between passion and zeal.

I want to thank the Michigan State Medical Society for this honor. (*Applause*)

THE SPEAKER: Henry R. Carstens, M.D., Chairman, will present the Annual and Supplementary Reports of the council.

IV. Annual Reports of the Council

HARRY R. CARSTENS, M.D.: Mr. Speaker and Members of the House of Delegates: The Annual Report of The Council for the year 1939-40 appears in the Delegates' Handbook beginning at page 29. As this report was writen in July so that it might appear in print, we wish to submit additional information on matters which have been considered by The Council and its Executive Committee during the past few months.

Membership.—The membership of the Michigan State Medical Society is at an all time peak of 4,436. It would appear that the prophesy that the State Society would end the year 1940 with 4,500 members will easily be fulfilled.

Meetings of allied medical groups coincident with the Annual Meeting of the Michigan State Medical Society: Our recommendation to the House of Delegates at the 1939 session to encourage other medical groups to meet at the same time and place as the Michigan State Medical Society, has borne fruit. The Michigan Association of Industrial Physicians & Surgeons is meeting this year in Detroit, today, and this evening. This closer association will result in better coördination of medical work and service in all its branches, particularly important in Industrial Medicine at this moment of military preparedness.

Fund to aid impoverished physician-members and the widows and orphans of deceased members of the Society: This study, referred to The Council by the 1939 House of Delegates, is mentioned on page 37 of the Handbook. The suggestion to create a fund from contributions by Michigan physicians was made the subject of a questionnaire and sent to all county society secretaries by The Council. Following is the analysis of replies:

Twenty-six societies, representing thirty-three counties, replied to the questionnaire, as follows:

Q. 1. In your county, do you know of any specific cases of want by a member or former member, or neglect of a doctor's family by reason of his death? (By want and neglect might be interpreted lack of advantages for children to complete their education, et cetera.)

A. Twenty-six replies were received, of which seventeen replied "No," and nine replied "Yes," eight of whom qualified this answer by saying "Only one in recent years," and one county had only two cases.

Q. 2. In your estimation, what percentage of doctors leave sufficient money to provide for their families at their death?

A. Two said "All"; 7, "Most"; "90 to 99 per cent": 5; "80 to 90 per cent": 2; "70 to 80 per cent"; one; "50 to 60 per cent": two; "above 40 per cent": one; "30 to 40 per cent": one; five did not give any estimate.

Q. 3. As County Society Secretary, what is your personal opinion of this proposed plan and what are your suggestions?

A. *Eleven* thought it a good idea; *seven* were opposed to the plan and suggested that a program of educating the doctor to provide for his dependents through an adequate personal insurance program would be more effective; *three* believed such a plan was not necessary; *four* thought this problem should be handled locally; *one* suggested dues of State Society be increased to set up such a fund; *two* suggested more study; *one* suggested Michigan State Medical Society set up a loan fund; *two* believed it would be impossible to make it compulsory and therefore difficult to collect funds and the plan would be unworkable; *one* suggested that these cases be referred to welfare agencies already existing; *one* stated that it was "absolutely unnecessary and un-American."

Roughly, eleven county society secretaries favored the idea while fifteen definitely opposed it or offered substitutes. It is to be noted that no replies were received from 28 county society secretaries whose territories comprise 50 of the State's 83 counties. This might suggest that there is little interest in, or small need for, the creation of a fund for impoverished physicians, their widows and orphans in Michigan.

Preparedness.—Today you have heard much about Medical Preparedness in the excellent reports of the Officers. Associated with this important matter is the question of a moratorium or remission on the medical society dues of members who enter military service. A recommendation on this subject follows:

Michigan Medical Service.—An up-to-date report shows a total of over 67,000 subscribers, for whom approximately 3,000 services have been performed, with $120,000 being paid to the physicians who rendered this medical care. Thirty-three hundred doctors of medicine have signified their willingness to cooperate with the Corporation in bringing service to the lower income groups. The Balance Sheet, and other financial reports, which will be presented to the

members of Michigan Medical Service on Wednesday, are both satisfactory and encouraging.

Medical Relief.—The administration of medical relief to those on Welfare is in a very chaotic condition in Michigan at the present time. The State Society and its Legislative Commitee labored unceasingly in the Legislature of 1939 to establish the cardinal principle of the physician-patient relationship. The recent Michigan State Medical Society survey on Medical Welfare in Michigan (published in the August JOURNAL) brings out the fact that the law is being evaded in this respect in a number of counties. Moreover, criticism from the politicians of some counties is jeopardizing the satisfactory and law-abiding contracts which some nine or ten county medical societies have with their County Social Welfare Boards. In recent weeks, the Social Welfare Commission, after a great deal of pressure has matched the salaries of physicians who are working full time supplying medical relief to welfare patients in clinics and dispensaries. In other words, full-time county physicians, appointed by politicians, are gradually eliminating the family physician-patient relationship or free choice of doctor for which the State Society battled six months last year. This objectionable condition will increase and multiply—unless the county medical societies stand up for the letter and spirit of Act No. 280—the Welfare Law of 1939. This is a serious situation which can be rectified only by *instant action* by the medical profession in those counties where the law is being evaded. This is a matter of *"doing* now—or forever holding your peace." A recommendation on this subject follows.

Crippled-Afflicted Child Laws Administration.—The 1939 Legislature appropriated only $300,000 for crippled and $500,000 per annum for afflicted child care (about one-third the former appropriations). This was a severe measure to help balance the budget. In the words of Governor Dickinson, the appropriations were too drastically cut. However, nothing was done to remedy the bad situation—except to slash doctors' fees 40 per cent below the *actual cost* of doing business (the doctors already giving the State 50 per cent discount or *cost price* on care of crippled and afflicted children). No other commodity is purchased by the State at 50 per cent discount!

Did the medical profession strike, as would have been done by some other groups? NO. The physicians in 61 of the 83 counties refused the far-less-than-cost fees arbitrarily imposed, without consultation with them; they decided to perform the needed medical work on Michigan's victims of infantile paralysis and other diseases as their own private CHARITY—until such time as the *Legislature could see that justice was done.*

Despite the altruistic work of our doctors of medicine, the Michigan Crippled Children Commission reports that 937 crippled children (and no one knows how many afflicted children!) who should have had immediate treatment last year (up to June 30, 1940) have received no care. Their future care will cost the State far more than a continuing rehabilitation program now. A recommendation on this subject follows.

Renewal of Corporate Term of Michigan State Medical Society.—As stated on page 37 of the Handbook, the Michigan State Medical Society received a charter from the State of Michigan thirty years ago. This summer, when The Council attempted to renew the term of that charter for another thirty years, we were advised the law required that *all* members of the Michigan State Medical Society be called together to vote on the proposition! This you will readily see is impossible of performance, especially when the membership of our Society represents a large plurality of all the medical practitioners in the State; someone must stay at home to care for the sick! However, the law is the law, and the best arrangement that could be made with the Michigan Corporation and Securities Commission is the following: that at a general meeting, the membership of every county medical society should vote in favor of the extension of the Michigan State Medical Society's charter and empower its delegate or delegates to the 1941 Michigan State Medical Society House of Delegates to represent the members in the vote on the charter renewal. Therefore, in order to continue the life of the Michigan State Medical Society, this legal red-tape must be followed. Meanwhile, we have a two-year grace period. A recommendation on this subject follows.

Authorization to Levy Assessment.—You will recall that at the 1938 and 1939 session, the House of Delegates authorized The Council to levy an assessment of $5.00 on every member of the Michigan State Medical Society, as seemed justified in the opinion of The Council. The Council is gratified at your confidence and is very happy to state that matters were so well arranged by its Finance Committee that no direct assessments were required. A recommendation on this subject follows.

The Council is appreciative of the splendid cooperation it has had from members of the Society during the past year—one of the most active and important periods in the association's history.

I wish to thank all members of The Council and especially the Executive Committee—particularly those who served in a dual capacity as members of the Board of Directors and Executive Committee of Michigan Medical Service—for their devotion to the many tasks assigned during the past twelve months. Without their loyalty and fine spirit of coöperation, and indeed their costly sacrifice of hours and days of time attending thirty-six long sessions, transacting the important business of Medicine, we could not have made the rapid progress which is reflected in the reports of the State Society and of Michigan Medical Service.

Recommendations

The Council's first four recommendations are published in the Handbook, on page 38. I shall read them, to re-invite them to your attention:

1. That all county medical societies retain efficient Secretaries and Delegates, who are the sparkplugs of the county and state organizations.

2. That a Doctor of Medicine always be retained as a member of the State Social Welfare Commission which needs the help of such a qualified professional man to aid it with the many technical questions concerning the fifth necessity, medical care.

3. That approval be given to contact work with insurance associations, to the end that voluntary agreements providing for liens in accident cases for physicians' services may be developed in Michigan.

4. That a public relations department be maintained in the executive office of the Michigan State Medical Society, to bring to officials of governments and to the people the facts concerning medical problems and progress, and that the Council be instructed to set aside an annual appropriation for the proper maintenance of this important bureau.

The Council offers these additional recommendations, covering matters presented in this Supplemental Report:

5. That a moratorium or remission on Michigan State Medical Society dues of members in military service be authorized, to be effective for the period the individual physician is on active full-time duty in the U. S. Army, Navy, Marine, or National Guard; and that our County Medical Societies study the feas-

ibility of a like moratorium or remission for county society dues.

6. That every county medical society take aggressive action to the end that county Welfare Boards comply with the provisions of the Michigan Welfare Law, especially with relation to the cardinal principle of the physician-patient relationship; and that Delegates, who come from those counties or districts where the law is not being complied with, be instructed to appear this autumn before their county medical societies and present full information on this serious infringement of patients' rights, in order that early action may result in all parts of the State. Further, that county societies contact their Boards of Supervisors before October 1, on which date their annual budgets will be adopted. Finally, that all members of the Michigan State Medical Society be urged to inform their welfare patients of their legal rights, so far as medical service is concerned.

7. That all groups sincerely interested in unfortunate crippled and afflicted children should meet to devise a sound and permanent plan so that Michigan's crippled and afflicted child program will become the best rehabilitation program in the country; that the appropriations should be increased to a reasonable sum so that needed care is given to crippled and afflicted children, and cost fees are paid to physicians and hospitals; that the intake should be controlled and State care limited to the indigent and medically indigent by enacting a law authorizing a thorough economic and medical investigation of every applicant for aid under the Crippled Child Act and the Afflicted Child Act.

8. That the House of Delegates urge county medical societies and individual physicians to maintain contacts with U. S. Congressmen, Michigan legislators, and all other office holders whose duties pertain to legislation and administration of matters affecting the health of our citizens and the practice of medicine.

9. That every county medical society, at a general meeting this autumn, present to its membership a resolution calling for the extension of the Michigan State Medical Society's charter, and empowering its delegates to represent the members on this question when it is presented to the 1941 House of Delegates.

10. That the House of Delegates re-affirm its authorization to The Council to levy a capital assessment, or assessments, not to exceed a total of $5.00, as seems justified in their considered opinion.

In conclusion, I wish to state that The Council has been trying not only to protect but to promote the interests of all of our members, realizing that the status of Health and Medicine in Michigan will improve in direct proportion to the satisfactory position of those who serve the public in medical matters.

THE SPEAKER: Thank you, Dr. Carstens. The Reports of the Council will be referred to the Committee on Reports of The Council.

The next order of business is the Report of the Delegates to the American Medical Association by Henry A. Luce, M.D.

V. Report of Delegates to A.M.A.

HENRY A. LUCE, M.D.: Mr. Speaker, that report is published in the Handbook, to which your attention is invited.

THE SPEAKER: The report of the Delegates to the A.M.A. will be referred to the Committee on Officers' Reports.

THE SPEAKER: The next order of business is the presentation of resolutions.

VI. Resolutions

VI-1. GENITO-INFECTIOUS DISEASE PROGRAM

C. K. VALADE, M.D. (Detroit): Mr. Speaker, I have a resolution on the Venereal Disease Program, hereafter spoken of as the Genito-Infectious Disease Program.

Dr. Valade read a resolution on the Genito-Infectious Disease Program.

THE SPEAKER: This Resolution will be referred to the Reference Committee on Reports of Standing Commitees.

VI-2 NEW GAVEL TO SPEAKER

T. K. GRUBER, M.D. (Wayne County): I have been instructed and requested by The Council of Wayne County Medical Society and the delegates representing the Wayne County Medical Society, to present the following resolution.

Dr. Gruber read the resolution on the presentation of a new gavel to the speaker.

THE SPEAKER: This reslution will be referred to the Committee on Resolutions.

VI-3. SPECIAL MEMBERSHIPS (EMERITUS AND RETIRED)

Henry E. Perry, M.D., of Luce County read a resolution asking for the election of Frank P. Bohn, M.D., of Newberry to Emeritus Membership.

THE SPEAKER: This resolution will be referred to the Committee on Resolutions.

VI-4. CHANGE OF COUNTY SOCIETY NAME

C. R. KEYPORT, M.D. (O.M.C.O.R.O.): Mr. Speaker and Members of the House of Delegates: I have been instructed by my County Medical Society to present the following resolution. This resolution deals with the annexation of two counties to our six counties in North Central Michigan and also deals with the change of the name of the Society. The members of these two adjacent societies are now members of our county society.

Dr. Keyport read the resolution on changing the name of the O.M.C.O.R.O. County Medical Society and including Kalkaska and Gladwin Counties.

THE SPEAKER: The resolution offered by Dr. Keyport will be referred to the Committee on Resolutions.

VI-3. SPECIAL MEMBERSHIPS

J. A. Wessinger, M.D., of Washtenaw County read a resolution requesting that James B. Wallace, M.D., of Saline, Michigan, be granted retired membership.

THE SPEAKER: This resolution will be referred to the Committee on Resolutions.

FRANK E. REEDER, M.D.: I am instructed by the membership of the Genesee County Medical Society to present for Retired Membership the name of Mark S. Knapp, M.D. Dr. Knapp is well known, I am satisfied, to almost everybody in this House. He has been an active member in the interest of organized medicine for thirty-four years. Because of physical reasons he is unable to continue practice.

THE SPEAKER: The resolution offered by Dr. Reeder will be referred to the Committee on Resolutions.

VI-5. AMENDMENT TO AFFLICTED CHILDREN'S ACT

A. L. CALLERY, M.D., (St. Clair County): I have been asked by some members to submit the following resolution.

Dr. Callery read a resolution asking for the amendment of the Afflicted Children's Act.

THE SPEAKER: This resolution will be referred to the Reference Committee on Standing Committees.

VI-3. SPECIAL MEMBERSHIPS

G. C. Penberthy, M.D. (Wayne County): Mr. Speaker and Members of the House of Delegates: I have been instructed by the Wayne County Medical Society to make the following recommendation for Emeritus Membership.

Dr. Penberthy read the resolution recommending for Emeritus Membership, James H. Sanderson, M.D.; and a resolution recommending for Associate Membership, Mr. John Mannix.

The Speaker: The resolution offered by Dr. Penberthy will be referred to the Committee on Resolutions.

VI-6. PUBLIC RELATIONS

C. F. DeVries, (Ingham County): In keeping with Recommendation No. 4, made by The Council, I wish to present the following resolution.

Dr. DeVries read the "Resolution re Public Relations."

The Speaker: The resolution offered by Dr. DeVries will be referred to the Reference Committee on Reports of the Council.

VI-3. SPECIAL MEMBERSHIPS

M. G. Becker, M.D., of Gratiot-Isabella-Claire Counties read the resolution recommending for Emeritus Membership, Leslie A. Howe, M.D., of Breckenridge.

The Speaker: The resolution offered by Dr. Becker will be referred to the Reference Committee on Resolutions.

VI-7. MATERNAL HEALTH

C. T. Ekelund, M.D., (Oakland County): I have been asked to present a resolution which is admittedly on a controversial subject, and I only bespeak for it your careful understanding. This is on the question of contraception and is promulgated by the Maternal Health League of Michigan.

In presenting this resolution, it should be borne in mind that their program has been in continuous operation since 1927, and that the Section on Gynecology and Obstetrics of this Society held a symposium on contraception in 1933 and gave its approval to the work of that organization at that time. Since then the State and County Health Departments have been unofficially aiding that program in one way or another, and this resolution aims to make that aid official.

Dr. Ekelund read the resolution on Birth Control.

The Speaker: The resolution offered by Dr. Ekelund will be referred to the Reference Committee on Resolutions.

VI-3. SPECIAL MEMBERSHIPS

T. E. Hoffman, M.D., of Tuscola County read a resolution recommending for Emeritus Membership, George Bates, M.D., of Kingston.

The Speaker: The resolution offered by Dr. Hoffman will be referred to the Resolutions Committee.

George A. Sherman, M.D., of Oakland County read the resolution recommending for Retired Membership, C. J. Sutherland, M.D., of Clarkston.

The Speaker: The resolution offered by Dr. Sherman will be referred to the Reference Committee on Resolutions.

VI-8. BEAUMONT BRIDGE

Henry A. Luce, M.D., of Wayne read a resolution on Naming the Bridge connecting Mackinaw City with St. Ignace.

The Speaker: The resolution offered by Dr. Luce will be referred to the Reference Committee on Resolutions.

VI-3. SPECIAL MEMBERSHIPS

Paul Engle, M.D., of Eaton County read a resolution recommending for Retired Membership, C. S. Sackett, M.D., of Charlotte.

The Speaker: The resolution offered by Dr. Engle will be referred to the Reference Committee on Resolutions.

J. H. Kirton, M.D., of Houghton-Baraga-Keweenaw read a resolution recommending for Emeritus Membership, Donald K. MacQueen, M.D., of Larium.

The Speaker: The resolution offered by Dr. Kirton will be referred to the Reference Committee on Resolutions.

D. C. Denman, M.D., of Monroe County read a resolution recommending for Retired Membership, E. M. Cooper, M.D., of Rockwood.

The Speaker: The resolution offered by Dr. Denman will be referred to the Reference Committee on Resolutions.

VII. Amendments to Constitution

VII-1. PROPOSED AMENDMENT TO CONSTITUTION

Paul W. Kniskern, M.D., (Kent County): This is a proposed amendment to the Constitution, of the Michigan State Medical Society. It has two purposes: first, to elucidate the language of the Constitution in so far as it empowers us to invest our funds in bonds and stocks; second, to limit such investments to Government bonds.

Dr. Kniskern read the proposed amendment to Article IX, Section 4.

The Speaker: The resolution offered by Dr. Kniskern will be referred to the Commitee on Amendments to the Constitution and By-Laws.

VI-9. GENERAL PRACTITIONERS IN HOSPITALS

G. L. McClellan, (Wayne): Mr. Speaker, I have been requested by some general practitioners of Detroit to have this introduced from the floor of the House.

Dr. McClellan read a resolution with reference to extending more liberal consideration to the General Practitioners in Class A Hospitals.

The Speaker: The resolution offered by Dr. McClellan will be referred to the Committee on Resolutions.

I shall declare a recess of ten minutes.

Ten-minute recess.

The Speaker: I wish to announce that when we convene this afternoon, we will go into executive session. So often matters arise that some delegate wishes the House to go into executive session. To avoid any embarrassment to members of the press and others, we will declare the first part of the afternoon session to be an executive session, and any matters of that kind can be brought up then.

VI-3. SPECIAL MEMBERSHIPS

Dean W. Myers, M.D. (Washtenaw): Mr. Speaker, it has come to the attention of the delegates from Washtenaw County that we have a member in our county who should be placed upon the list of Retired Members, James F. Breakey, M.D., who is retired from practice and is now entitled to Retired Membership. He has practiced medicine for over forty-four years, and about twenty-five years ago was President of the Washtenaw County Medical Society. We recommend that he be transferred to Retired Membership.

The Speaker: The resolution offered by Dr. Myers will be referred to the Committee on Resolutions.

George Southwick, M.D. (Kent): I have been asked by Kent County Medical Society to present the names of two of our members of the County Society for Retired Membership.

I would like to present the names of W. E. Wilson, M.D., and T. W. Hammond, M.D., for Retired Membership.

THE SPEAKER: The resolution offered by Dr. Southwick will be referred to the Reference Committee on Resolutions. There might be some delay on these last offered, because they have not been checked by the office at Lansing, and a telephone call will have to be made to verify their period of membership.

We will now go to the next order of business, the Reports of Standing Committees.

Owing to the fact that Dr. Campbell has another engagement, I will call on him first for the Report of the Maternal Health Committee.

VIII. Reports of Standing Committees

VIII-1. MATERNAL HEALTH

A. M. CAMPBELL, M.D., (Grand Rapids): Mr. Speaker and Gentlemen: This is a supplementary report which was not presented in time to appear in the Handbook. It concerns a survey which the Committee on Maternal Health made last year of the facilities for the care of maternity cases in the licensed maternity hospitals and maternity homes.

We realize, as a committee, that practically fifty per cent of the babies are born in hospitals in this state, and we are concerned as to what type of care some of these women receive, especially in the smaller hospitals and in the maternity homes. Consequently, we got up a survey and presented it to the Social Welfare Department, and through the supervision of Miss Robinson the survey was carried out. Miss Robinson personally saw that all these survey blanks were pretty carefully filled out. The result is that there are 611 hospitals in the state that render maternity service and 68 maternity homes.

Now, some literature has appeared recently which indicates that possibly the small hospital presents an obstetric hazard. A recent article brings out the suggestion that any licensed hospital that cannot take care of 150 births a year probably is not sufficiently equipped to safeguard the mother adequately.

With that in view, we got a few statistics together. I will not bore you with any great detail, excepting that the survey shows we have in Michigan 129 maternity hospitals in which there are less than 150 births annually, and the statistics show that the maternal mortality from that group is a trifle higher than the maternal mortality for the larger hospitals, but it is not very appreciably higher. We were surprised, in fact, to note from this survey that the maternal mortality in the small hospitals was as low as it is. The maternal mortality in these small hospitals is almost comparable with the maternal mortality the state over, which in 1938 was 3.56 per thousand births. There are 2,704 bassinets in the State of Michigan. These hospitals took care of 52,661 patients, and the state's complete birthrate in 1938 was 96,902. In other words, the hospitals in the State of Michigan are taking care of over 54 per cent of the births in the state.

Now this problem, "Is the small hospital a menace?" is an important one, and all we can say at the present time is that our statistics do not indicate that the small hospital is such an obstetric hazard as some men who have written about it believe it to be.

We do, however, believe that the three qualifications should be more carefully lived up to than they are; and those are the qualifications demanded by the American Hospital Association and the American College of Surgeons, that an obstetric department must be separated entirely from the other parts of the hospital; that the attendants at these cases, pa-ticularly the nurses, must not do any other type of work in any other part of the hospital; and that the hospital is responsible for the supervision and the care that these expectant mothers receive.

This study also brings out the fact that there are about sixty incubators in the entire state, some of them very old and very inefficient. In that connection, you might be interested to know that in the State Department of Health, the Chief Engineer has been working for two years in an endeavor to have them make an incubator that is cheap and portable, and that has not been completed as yet.

This study brings out, in brief, that the maternal mortality in smaller hospitals is slightly larger than that in the state at large.

Now, a word about maternity homes. We are concerned about those, because they are really only substitutes for the homes in which the economic and social conditions make it impossible to have a woman taken care of properly. This study concerns only about one per cent of the babies that are born, but it shows that the maternal mortality was lower than in any other group. Thank you very much.

THE SPEAKER: The Report of the Maternal Health Committee will be referred to the Reference Committee on Reports of Standing Committees.

We will now have the Report of the Legislative Commitee. Dr. Miller.

VIII-2. LEGISLATIVE COMMITTEE

HAROLD A. MILLER, M.D.: Mr. Speaker, Members of the House of Delegates: You will find the Report of the Legislative Committeee on page 45 of the Handbook. This year the committee has been comparatively inactive, except in an advisory capacity. For the coming year the Committee plans no aggressive projects.

We know that the cultists are going to be very active this coming year. Talks have been given by Dr. Urmston and Dr. Carstens with their recommendations for the future, in regard to your activity in the welfare setup in your county, and the state legislation has been dwelt on. I want to recommend that you do find out what the legislators in your community plan to do in regard to your welfare problem.

The second thing is in regard to the afflicted and the crippled child. The recommendations have already been given, and they have been approved by our Legislative Committee.

It is going to be necessary, as in the years past, for not only the delegates to be interested in this problem of legislation, but every member of the State Society should be a cog in helping us in the Legislative Committee to do your work at Lansing.

THE SPEAKER: Thank you. The report will be referred to the Reference Committee on Standing Commitee reports.

Next we will have the report of the Representatives to the Joint Committee on Health Education. Dr. Jackson.

VIII-3. REPRESENTATIVES TO JOINT COMMITTEE ON HEALTH EDUCATION

BURTON R. CORBUS, M.D.: Mr. Speaker, Dr. Jackson has asked me to state that there is no supplementary report.

THE SPEAKER: The report of the Representatives to the Joint Committee on Health Education will be referred to the Reference Committee on Standing Committees reports.

VIII-4. COMMITTEE ON DISTRIBUTION OF MEDICAL CARE

S. W. HARTWELL, M.D.: Mr. Speaker and Members of the House of Delegates: The official report of the Committee is published in the Handbook for Dele-

gates, on page 51. I have a few supplemental remarks which I want to make, together with a demonstration of the maps which have been derived from the information which was sent to us by the secretaries of the component societies.

It has been the custom in the past few years for anyone who thinks socially, and most people pride themselves on doing that, to speak liberally of the distribution of medical care, whether or not he knows anything about it. It appeared to us that one of the necessary things for us was to place facts on paper in such a way that we could analyze what it is we are talking about, and for that reason we have started the development of maps, which are aimed to show the distribution of all phases of medical care in Michigan.

As a result of questionnaires sent to the component societies, requesting information concerning the location of practicing physicians of all types, of laboratory procedures, and of hospital beds of all types, we have started these maps which I wish to demonstrate here.

In the consideration, however, of the distribution of medical care, there are several factors which are not purely medical and which are usually left out of social thinking. One of those questions is: How many people are in the neighborhood? The other question is: If the people are there, how much money is there to take care of them, whether that money be governmental money or individually owned money?

So these two factors, the purchasing power of the locality, the number of persons in the community, bear a direct relation to the distribution of medical care and to where additional medical care should be added, and possibly to some places where it might well be subtracted.

For that reason, we set out to show the distribution of the population of Michigan, not by counties but by townships, and using one hundred persons for every dot, we have made a stippled map of Michigan, showing the population as it is actually spread across the state. This is shown on this map. Naturally, the actual population of cities cannot be so demonstrated, and symbols have had to be used for that demonstration.

Going hand in hand with the distribution of population is its purchasing power. There are many ways of displaying this. However, it seemed that as our services are almost entirely comparable to the services which are bought by people who purchase retail goods, the distribution of retail sales would be a satisfactory index to use. Therefore, we have plotted the counties according to their retail sales percentage for the State of Michigan.

In this map, the red represents 83.41 per cent of the purchasing power of the state; the yellow represents 9.2 per cent; the green, 5.1 per cent; and the blue, 2.3 per cent. We hope that when the figures of the 1940 census are available, we can combine the two types of maps that are on that board, with the distribution of the 1940 population combined on the same map, with the shading showing the purchasing power as represented also in 1940. These maps have been developed from the 1930 census.

With that combined map as a base map, we have in mind establishing a visual representation, which would be subject to showing any phase of medical distributive factors—laboratory, specialists, general practitioners, hospital beds, and so forth. To demonstrate that, I have brought a map showing the distribution of practicing Doctors of Medicine in the State of Michigan. These are shown by pins and again we had the problem of representing actual numbers, and had to diminish the spread of numbers by using different-colored headed pins for varying numbers of physicians in any one locality. The shaded area represents the counties from which we have no report available.

It is our belief that, aided with such visual and analyzable statistics, it may well be possible to plug up certain holes which undoubtedly exist in the adequate distribution of medical care in Michigan, and in so doing possibly to make it a little bit more difficult for the people of certain communities to look upon cultists as the only physicians in their communities.

THE SPEAKER: Dr. Hartwell's report will be referred to the Reference Committee on Reports of Standing Committees.

The next is the Medical-Legal Committee.

S. W. Donaldson, M.D., represented the report, as it appears in the Handbook.

VIII-5. MEDICAL-LEGAL COMMITTEE

THE SPEAKER: The Report of the Medical-Legal Committee will be referred to the Reference Committee on Reports of Standing Committees.

We will now have the Report of the Postgraduate Medical Education Committee.

VIII-6. POSTGRADUATE MEDICAL EDUCATION COMMITTEE

J. D. BRUCE, M.D. (Ann Arbor): Mr. Speaker, I have no written supplementary report, but I would like to make a little oral report to you; that is, to congratulate the Society upon their persistency in following through with a program of postgraduate education.

I read last night a part of the Report of the Commission on Medical Education, just issued, and in that report it is stated that in twelve states of the Union doing most in postgraduate education the average attendance in the postgraduate programs is twenty-five per cent of the state membership. I think we should congratulate ourselves on the fact that we have slightly in excess of fifty per cent of the state membership, unless the state membership has been boosted within the last few weeks.

In addition to that, the Commission on Medical Education reënforces us in the kind of program we are presenting. You probably recall that the programs differ in different states, but in the Michigan program there are more of the features that are commended by the Commission than in any of the states that have been examined by its representatives.

This year I am glad to announce a further step in our work in the recognition of qualified men. Up to the present, we have been giving certificates, as you all know, for attendance of sixty per cent or more over a four-year period, which qualify a man for an associate fellowship in postgraduate education. At the end of a second period, he is entitled to a certificate of fellowship.

In discussion with Dean Norris of the Wayne University Medical School, and Dean Furstenberg of the University of Michigan, within the last two or three days, I raised the question of an additional form of certification, and this I did for the reason that many men have asked for some special qualifying certificate other than that given for attendance. They have both agreed that after a period of four years' attendance both schools will make available an examination on the content of the four-year course, and on successfully passing that examination the candidate will be given a certificate of proficiency from the University.

Now, we have not decided yet whether that will be a composite certificate—that is, one coming from both universities—or the candidate will have to go to one or the other. In any event, the examination will be identical, and it will be formulated by a member of the faculty of Wayne University College of Medicine, by a member of the faculty of the University School of Medicine, and a member from the State Society. I think that is a distinct advance in recognition for an improved quality of service on the part of the individual.

I was thinking this morning of the history of our

efforts in postgraduate education. They extend now over about twenty years. It leads one to believe that anything that is worth while is going to take quite a long time to accomplish.

We have now in Michigan a well-planned postgraduate program in the State Society which has taken twenty years to develop. The Michigan Medical Service Plan, just inaugurated, has taken something in excess of ten years to develop. So one might generalize and say that anything that is worth doing is worth devoting ten years to develop.

I don't think there is anything more to add to this. Most of the factual data will be found in the short report that I gave you.

THE SPEAKER: This committee will be referred to the Reference Committee on Standing Committees.

VIII-7. PUBLIC RELATIONS COMMITTEE

Dr. Foster informs me that the Public Relations Committee has nothing further to report, other than the report in the Handbook. The Report of the Public Relations Committee will be referred to the Reference Committee on Standing Committees.

VIII-8. ETHICS COMMITTEE

H. W. PORTER, M.D. (Jackson): Mr. Speaker, I would like to announce there is nothing that has to be added to the report as published in the Handbook.

THE SPEAKER: The Report of the Ethics Committee will be referred to the Reference Committee on Reports of Standing Committees.

VIII-9. PREVENTIVE MEDICINE COMMITTEE

L. O. GEIB, M.D. (Detroit): The Report of the Committee on Preventive Medicine is in the Handbook. The only supplementary report would be that the Committee had a meeting yesterday, at which time consideration was given and the supplementary reports on Maternal Health, Child Welfare and Tuberculosis were ratified.

THE SPEAKER: The Report of the Preventive Medicine Committee will be referred to the Reference Committe on Standing Committees.

VIII-10. CANCER COMMITTEE

The Cancer Committee report as printed in the Handbook is referred to the Reference Committee on Standing Committees.

VIII-11. COMMITTEE ON IODIZED SALT

FREDERICK B. MINER, M.D.: Mr. Speaker: Last February the chairmanship of the Iodized Salt Committee came to me by the untimely death of Dr. Cowie. As you all know, Dr. Cowie had championed the Committee for seventeen and one-half years. He gave it much study and a great deal of work. In his private laboratory, he continuously checked up on samples of iodized salt, and to him we owe all credit for the establishment and the bringing out to the profession of the state and to the profession of the United States our iodized salt.

The "Battle of Washington" just happened in April, when I happened to be in Washington and consulted with the Federal Food and Drug Administration. To my great amazement, I found that we had almost lost iodized salt in the previous January. If it had not been for Dr. Thomas Parran's department, it would have been wiped off the slate, but he saved the day for further consideration, and in April we found already published on March 28 in the Federal Registry, such restrictions on iodized salt that it would have been defeated in a short time.

Fortunately, the President's executive order, changing the Department of Food and Drugs from the Agricultural Department to the Federal Security Agency, gave us ample time to get in our oars, and also nullified the publication of the Federal Registry and the public hearing which was to have taken place on April 29. Had that hearing gone through and been unattended by any member of the Michigan Society, the salt producers would have been compelled to use on the labels of iodized salt a defeatist statement. If you notice, now on the present labels no therapeutic statement is made. It is simply "IODIZED SALT." The fight before the Administration is to reëstablish a simple statement that "IODIZED SALT PREVENTS SIMPLE GOITER." Your House of Delegates authorized this Committee in 1923 to ask for such a statement, and it has been used continuously since that time. We feel that it has been the major factor in educating the public and possibly the profession in the use of iodized salt, and such a statement should be continued on the label. We feel that the consumer and the retailer have a right to know why salt is iodized.

When iodized salt first came before the Federal Food and Drug Administration, the immediate question was, "Why is a poison added to a commodity which is used so generally as salt?" In spite of figures, statements, and results, they still maintained their attitude not to allow a therapeutic statement on the label. However, with due pressure, through the Surgeon General's Department, we have been assured that it can be reëstablished on the label. But we have no statement from the Food and Drug Administration as yet that they are giving us that authority.

In behalf of the Iodized Salt Committee, I wish to convey its appreciation for the timely action of your Executive Committee and the Council and their assistance in supporting the Committee's recent urgent action with the Federal Food and Drug Administration and Surgeon General Parran's Department.

I am sure that the tribute this morning was quite undeserved. Any committeeman finding himself in a similar predicament would have done as much or more than I have done in saving iodized salt for our state.

Mr. Speaker, I wish to add a report of the Child Welfare Committee.

VIII-12. CHILD WELFARE COMMITTEE

The fifth meeting of this committee was held on August 28, subsequent to the rendering of the report that appears in the Handbook.

It is felt that the State Medical Society, through this Committee, has a very definite responsibility to acquaint itself with the medical procedures and standards in all of our child-caring institutions, and in turn to render all desirable aid and support possible. The dean at the school for the deaf, since our visit there last January, has expressed much appreciation for the suggestions given at the time of our visit last January.

Supplementary Report—Child Welfare Committee

Dr. A. H. Whittaker, Chairman of the Child Welfare Committee of the American Legion, presented a resolution for our consideration, which came from their committee and was subsequently passed by the Legion's Convention. In substance it is "to create a Study Commission which, after careful study and research, will bring a report and recommendation to the State Legislature for the enactment of a Children's Code which will supersede all existing statutes for the care and protection of children, and which will provide an orderly basis for guarding our state's most valuabe asset, our children." The suggested group to be made up of representatives from the following associations:

American Legion
Michigan State Medical Society

Michigan Branch of the American Academy of Pediatrics
Michigan Society of Orthopedists
Michigan State Department of Health
Michigan Hospital Association
Michigan Physiotherapists Society
Crippled Children's Commission
Michigan Welfare League

It is hoped that the Council and House of Delegates will concur in the Committee's action of endorsement and if the State Society is called upon by the new commander it will lend its fullest coöperation. The Legion has three hundred and fifty-three local child welfare committees and can be of material assistance.

In behalf of the Iodized Salt Committee I wish to convey its appreciation for the timely action of your Executive Committee and Council for their assistance in supporting the Committee's recent urgent action with the Federal Food and Drug Administration and Surgeon General Parron's department.

The problems of your Child Welfare Committee are many and varied; i.e., custodial care, up-to-date procedures in preventive medicine, and state remedial medicine. The field is large; the program of this Committee should be everlastingly progressive. In order to visit state institutions caring for children, and in order to keep abreast with, and to be the medical mentor to, the State Parent-Teacher organization and the State Department of the American Legion, much study and time will be required. This committee is going to need a full-time secretary if adequate and creditable work is to be done. Busy practitioners cannot afford the necessary time. Both of the lay organizations have such secretaries in their Child Welfare Departments. The surface this first year has barely been scratched.

THE SPEAKER: The Reports of the Child Welfare Committee and the Iodized Salt Committee will be referred to the Reference Committee on Reports of Standing Committees.

VIII-13. HEART AND DEGENERATIVE DISEASES

Next we have the Report of the Committee on Heart and Degenerative Diseases as published in the Handbook, which will be referred to the Reference Committee on Standing Committee Reports.

VIII-14. MENTAL HYGIENE

The Mental Hygiene Committee report as published in the Handbook will be referred to the Reference Committee on Standing Committee.

VIII-15. SYPHILIS CONTROL COMMITTEE

R. S. BREAKEY, M.D.: The Report of the Syphilis Control Committee is found on page 59 of the Handbook. There is only a brief supplementary report.

The Syphilis Control Committee wishes to endorse, in the sense of an additional report, the resolution submitted by Dr. Valade, a member of this Committee, this morning.

THE SPEAKER: The Report of the Syphilis Control Committee will be referred to the Reference Committee on Standing Committees.

VIII-16. INDUSTRIAL HEALTH COMMITTEE

HENRY COOK, M.D.: I do not wish to add anything to what is in the Handbook, but I would like to emphasize one point which it seems to me is not quite generally understood enough among the various county medical societies. They have a feeling that the work of industrial health has to do with industrial accidents which occur in industry, which is largely the responsibility of industry to take care of. Industry is making a study at the present time of the health condition of its workers and of those diseases which arise out of the ordinary illnesses but which affect his employment, and they are looking to the medical profession, the private practitioner, the private physician, to assist and coöperate with them in the correction of these things. Ninety per cent of the lost time in industry results from those diseases, and there is a great opportunity for the medical profession to take care of that work, which rightfully belongs to it, if it will take cognizance of that fact and coöperate with industry in the care of ordinary illnesses which have to do with lost time.

So I would like to emphasize that you men take back to your counties that one fact. If we do not pay attention to it, we are losing an opportunity. If we do, we are meeting our responsibility, and it is to our own advantage to do that.

THE SPEAKER: The Report of the Industrial Health Committee will be referred to the Reference Committee on Standing Committees.

VIII-17. TUBERCULOSIS CONTROL COMMITTEE

The Report of the Tuberculosis Control Committee as printed in the Handbook will be referred to the Reference Committee on Standing Committees.

The Speaker understands there is one further resolution which has not been offered, so I will at this time entertain a motion to revert to the previous order of business.

PAUL KNISKERN, M.D. (Kent): I move that we revert to the previous order of business.

The motion was seconded and carried.

VII. Amendments to Constitution

VII-2. PROPOSED AMENDMENT TO CONSTITUTION RE PAST PRESIDENTS

B. B. BUSHONG, M.D. (Grand Traverse-Leelanau, Benzie): This is a resolution to amend the Constitution:

"BE IT HEREBY RESOLVED that Article IV, Sections 1 and 2 of the Constitution be amended to provide for the retention of Past Presidents as Delegates at Large with power to vote."

THE SPEAKER: The resolution offered by Dr. Bushong will be referred to the Reference Committee on Constitution and By-laws.

THE SPEAKER: May we have a motion to revert to the usual order of business, please?

Upon motion regularly made, seconded and carried, the meeting reverted to the usual order of business.

THE SPEAKER: We will now take up the reports of special committees. The first report will be the report of the Committee on Nurses' Training Schools.

IX. Reports of Special Committees

IX-1. COMMITTEE ON NURSES' TRAINING SCHOOLS

A. L. ARNOLD, M.D.: The complete report is in the Handbook. We suggest that the committee be continued, for further study.

THE SPEAKER: The report of this committee will be referred to the Reference Committee on Reports of Special Committees.

IX-2. CONFERENCE COMMITTEE ON PRE-LICENSURE MEDICAL EDUCATION

This report will be referred to the Reference Committee on Reports of Special Committees.

IX-3. MEMBERSHIP COMMITTEE

This report will also be referred to the Reference Committee on Reports of Special Committees.

IX-4. RADIO COMMITTEE

J. Duane Miller, M.D.: The report is printed in the Handbook. Some twenty-four programs were prepared and broadcast over twelve stations during the winter period, and in addition a few rebroadcasts were requested and granted after consultation with the President of the State Society.

I want to emphasize two of the recommendations which our committee has made. The first two, of course, are purely technical and are made in the interest of succeeding committees.

The third is that the State Society and/or the Joint Committee on Health Education should set up some method for evaluating these programs. That suggestion was made because we have had various rumors about the value of different types of programs, and there seems to be no policy established for the preparation of these programs; that is, the type of program to be broadcast or the time of day or the time of year it is used.

Lastly, we think some effort should be made to coordinate the radio programs on medical subjects that are now broadcast by the University of Michigan, the Wayne County Medical Society, and those sponsored by the Joint Committee and provided by the Radio Committee of the State Society. There has been a great deal of overlapping and no one knows what the other is doing. I think it is time for those organizations to coordinate their programs in such a way as to avoid overlapping and repetition.

The Speaker: The Report of the Radio Committee will be referred to the Reference Committee on Reports of Special Committees.

IX-5. ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

This report of the Advisory Committee to the Woman's Auxiliary will be referred to the Reference Committee on Reports of Special Committees.

IX-6. SCIENTIFIC WORK COMMITTEE

I think evidence of that will be found during the following days of this session.

The Speaker: We will now recess until three o'clock.

The meeting recessed at twelve-thirty o'clock.

Tuesday Afternoon Session
September 24, 1940

The Second Session was called to order at three-twenty o'clock, Dr. Stryker presiding.

The Speaker: The afternoon session of the House of Delegates is now declared in order.

We will have the supplementary report of the Committee on Credentials.

E. O. Foss, M.D.: We have sixty-five registered delegates. That constitutes a quorum.

The Speaker: A quorum is present. The report of the Credentials Committee will constitute a roll call.

George Southwick, M.D. (Kent): I move that the House go into executive session.

The motion was seconded and carried.

The House of Delegates considered several matters in executive session.

William Ellet, M.D. (Berrien): Mr. Speaker, I move we rise from executive session.

The motion was seconded by several, put to a vote and carried.

The Speaker: Dr. Foster has a communication which he will read.

X-2. MEDICAL CORPS U.S.N.

Secretary Foster: Mr. Speaker and Members of the House: This is a rather lengthy communication that has been called to our attention in the last few hours by the Medical Department of the United States Navy. It is a little bit lengthy, but they have rather felt it was important that this information, which is new, be brought to this group now. This was given to me by Lieutenant Commander J. E. Malcomson, Medical Corps, United States Navy, and is as follows.

Secretary Foster read the communication from the Navy Department, outlining the opportunities in the Medical Corps of the Navy for physicians.

X-3. UNSATISFACTORY CONVENTION ACCOMMODATIONS

William Ellet, M.D. (Berrien): I note that there is no place on the program for the selection of a meeting place for next year. It has been the custom of this Society to alternate between Grand Rapids and Detroit. The accommodations in Detroit this year are terrible. I think there isn't a member from out of the city but has had difficulty in getting his room. There are three conventions in this hotel at this time. This room should have been emptied at twelve o'clock so that four hundred women outside here could come in.

Now, I don't know how to express this, whether in a resolution or not, but I feel it should be taken up by The Council, as long as it has been left in their hands before, that unless Detroit can make better arrangements for a convention two years from now, our convention should not be held here but in Grand Rapids.

I would like to hear any comment the Speaker might have to offer.

The Speaker: The Speaker deplores the lack of accommodations as much as any member of the House of Delegates.

In fairness to the Executive Secretary, I know that he had made all plans and that we had received assurances from the management, both of the Book-Cadillac Hotel and the Convention Bureau, that we would have exclusive convention privileges here at this time, but they just haven't lived up to their promises.

If there are any more remarks to be made by the House on the same subject, this is your opportunity.

Dr. Ellet: Mr. Speaker, might I ask if there is someone here from Wayne who has any objections to offer to my suggestion

R. L. Novy, M.D. (Wayne): Mr. Speaker, the delegates of Wayne are always glad to go out of town for conventions, rather than stay in town.

The Speaker: Perhaps it would be good to hear from the delegates of Kent.

C. F. Snapp, M.D. (Kent): Mr. Speaker, we always enjoy coming to Detroit to meetings, but the accommodations this year have certainly been deplorable. The idea of a hotel putting up three or four conventions! I understand there are three here at the same time. It is impossible for them to care for all at once. I know what you are up against.

We have no official authorization to invite you to Grand Rapids, but the delegation here from Kent was saying a while ago that we would be very glad to invite you up there for at least three years or more. We will give you an excellent meeting place, as you know from past experience, and we have plenty of space for exhibits. The exhibit space here, I think, is terrible, and I know the Society loses out on a lot of income because of the lack of space. We have an unlimited amount of it in Grand Rapids. We will be glad to have you in Grand Rapids as long as you like to stay.

Dr. Ellet: I have been authorized by the Mayor of Benton Harbor to invite the Michigan State Medical Society to hold its convention in Benton Harbor two years from now, with this exception—we cannot provide you space for your exhibits. We can provide you excellent hotel accommodations, and we can give you plenty of meeting rooms. That should be considered.

L. J. Hirschman, M.D. (Wayne): I agree with my colleagues of Wayne that we would like to go out of town for a meeting, and I do not know of a nicer

place to go than Grand Rapids. I go to Grand Rapids every year. But I want to say this one word. I believe you gentlemen who have come to meetings in Detroit in previous years have never run up against this experience you have had this year. We all feel very bad about it, because we want to be your host many, many times in the future.

I felt so disturbed about it that I telephoned the Convention Bureau this morning. I don't think the person at the other end heard all I said, because the wires melted from my heat. I found out that Lee Barrett, the President of the Convention Bureau, and his chief assistant, Mr. Sedan, are both in Boston at the Legion Convention. The man who is next in command I have asked to come over here to the hotel this afternoon and just see what you fellows are up against, and move around among you and ask some questions and find out your complaints, and then as an authorized member of the Convention Bureau to take it up with the hotel. I did that on my own responsibility, and he will be here later this afternoon. I hope you will tell him your story.

THE SPEAKER: It might be well to repeat again that these reservations for the officers, delegates, and all others were made last fall, and we have in the files in Lansing a letter, under date of October 21, 1939, in which there is definite assurance given that there would be no other convention in the Book-Cadillac Hotel at this time.

Does anyone wish to make a motion or refer this to The Council for further action? They probably know your attitude.

FRANK A. REEDER, M.D.: Mr. Speaker, I move that it be referred to The Council for further action.

The motion was seconded.

HENRY R. CARSTENS, M.D.: As a resident of the city, my face is equally pink. The Council has already taken up the matter. They started taking it up last night. As Dr. Hirschman said, one or two of the key men of the Convention Bureau were not here. What the full facts are, we do not know, but we think we will know tomorrow.

The Council does not yet know what the full facts are, but has already taken steps.

THE SPEAKER: We will now have a vote on the question. All in favor say "aye"; opposed the same. The motion is carried.

VI-3. SPECIAL MEMBERSHIPS

C. E. Toshach, M.D., Saginaw, read a resolution recommending that Dr. W. J. O'Reilley of Saginaw be made an Emeritus Member.

THE SPEAKER: The Resolution will be referred to the Reference Committee on Resolutions.

R. S. BREAKEY, M.D. (Ingham): I wish to ask a point of order. We wish to offer an amendment to the resolution offered by Dr. Valade this morning. It has passed to the Reference Committee. We approve it in principle. Is that amendment to be offered now or after the Report of the Reference Committee?

THE SPEAKER: I think the amendment should be made after the Report of the Reference Committee.

XI. Reports of the Reference Committees

XI-1. ON OFFICERS' REPORTS (I, II, III, V)

E. A. OAKES, M.D.: This Committee has to consider as officers' reports, the Speaker's Address, the President's Address, the President-Elect's Address, and the reports of the Delegates to the A.M.A. We have a very brief report for your consideration and for your action.

* * *

Your Committee on Officers' Reports appreciates the scope and extent of these reports, which included the Speaker's address, the President's address, and the President-Elect's address; and wishes to recommend these to the House of Delegates with their approval.

The Committee wishes to give special recommendation to the suggestion of President Corbus for contacting senior students regarding early affiliation with their county and state societies, believing this to be an important step in their early training as efficient members of the medical organization.

Likewise we recommend the splendid report of the Delegates to the American Medical Association and commend the report to you for full reading.

(Signed) E. A. OAKES, M.D., Chairman, A. T. HAFFORD, M.D., A. E. STICKLEY, M.D., R. C. JAMIESON, M.D., G. H. YEO, M.D.

I move the adoption of this report.

The motion was seconded, put to a vote and carried.

XI-2. ON COUNCIL REPORTS (IV and VI-6)

THE SPEAKER: Report of the Reference Committee on Reports of The Council. Dr. Pino.

RALPH H. PINO, M.D.: Considering the extensive amount of work done by The Council, we can offer only our congratulations and thanks. We have made some changes in the section having to do with a public relations activity, the resolution to read as follows:

Resolutions Re Public Relations

WHEREAS, The Council of the Michigan State Medical Society, as the result of a careful and thorough study of the need for sustained public relations with the people, realizes that due to an increasing number of social, economic and legislative problems relating to public health, medical care and the practice of medicine, an increasing need exists at the present time for the maintenance by the Michigan State Medical Society of a strong and active statewide Public Relations Department, and

WHEREAS, Even with splendid coöperation from the press and the radio of Michigan, for which the medical profession expresses its sincere gratitude, it is desirable to maintain a closer and more harmonious relationship between the medical profession and the people, and

WHEREAS, This can be accomplished by a well planned program of public relations worked out on a long range basis—a program embodying an efficient and effective press relation, an expanded radio program, increased legislative effort, an enlarged speakers' bureau and other worthwhile public contact activities, therefore be it

RESOLVED, That this House of Delegates authorize The Council and its Executive Committee to proceed with the development of such a public relations activity in the Executive Office of the Michigan State Medical Society, and that The Council be authorized to provide the necessary funds for the establishment of such a necessary activity and the employment of a Public Relations assistant in the executive office.

We have discussed every section of The Council report pro and con. We have listened to extensive argument. We are unanimous in recommending the adoption of the complete report. Mr. Speaker, I so move.

Respectfully,
COMMITTEE ON REPORT OF THE COUNCIL.

The motion was seconded by Dr. Paul Kniskern of Kent, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS
(Legislative Committee, VIII-2)

EDWARD D. SPALDING, M.D.: The first report is the Annual Report of the Legislative Committee, a tremendously important and hard-working committee. There are important comments about the necessity of not burdening the Legislative program in a year when combative measures against cult legislation are the most important matter.

The Committee entirely endorses this report, and I move its adoption.

The motion was seconded, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Representatives to Journal Committee on Health Education, VIII-3)

DR. SPALDING: The report of the Representatives to Joint Committee on Health Education is also endorsed in its entirety. I move its adoption.

The motion was seconded by G. C. Penberthy, M.D., of Wayne, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Cancer Committee, VIII-10)

DR. SPALDING: I will next take up the Annual Report of the Cancer Committee, which is endorsed, and I move its adoption.

The motion was seconded by E. A. Oakes, M.D., of Manistee, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Preventive Medicine, VIII-9)

DR. SPALDING: The Report of the Preventive Medicine Committee is also endorsed, and I move its adoption.

The motion was seconded by A. V. Wenger, M.D., of Kent, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Tuberculosis Control Committee, VIII-17)

DR. SPALDING: The Report of the Committee on Tuberculosis Control is brief, and is also endorsed, and I move its adoption.

The motion was seconded by C. E. Simpson, M.D., of Wayne, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Syphilis Control, VIII-15)

DR. SPALDING: The Report of the Syphilis Control Committee consists in the report as published in the Handbook, of some four pages, together with a resolution introduced this morning on the floor.

The report, as published in the Handbook, without the resolution, is endorsed, and I move its adoption.

The motion was seconded by R. C. Jamieson, M.D., of Wayne, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Resolution on Genito-Infectious Disease Program, VI-1)

DR. SPALDING: In this connection, Dr. Valade read a resolution this morning pertaining to the question of syphilis control and the treatment of disease. The Committee understands there has been some discussion in the Syphilis Committee on the wording of some of the final paragraphs of this resolution and that possibly a change will be offered from the floor at this point. The spirit of the resolution, as read this morning, is endorsed by the Committee. If there is any further change in the reading of the resolution as presented, it should come from the floor at this time.

R. S. BREAKEY, M.D.: I move an amendment to the resolution as read.

DR. SPALDING: The first half of the resolution is to be left as such. Possibly it would clarify the situation a little bit if I read the resolution, the last half of the resolution as presented this morning, and then read the rewording.

This is the resolution as presented this morning.

RESOLVED, That it is the sense of this House of Delegates that such coöperation on the part of the medical profession should be freely extended and that the official health agencies, state and local, charged with the administrative responsibilities for the conduct of the program be urged to formulate plans and machinery with the assistance of the Syphilis Control Committee of the Michigan State Medical Society for as full utilization as possible of such numbers of the local medical profession as are willing and competent to undertake the clinical management of such programs; and be it further

RESOLVED, That it is the sense of this House of Delegates of the Michigan State Medical Society that component county societies should coöperate fully in the effort to improve the quality of services to be rendered in genito-infectious disease control programs; and be it further

RESOLVED, That it is the sense of this House of Delegates of the Michigan State Medical Society that because of the potential dangers of intravenous therapy, such medication should be administered only by a duly qualified doctor of medicine.

That is as it was given to you this morning.

This is the substitute resolution, after the preamble:

(Dr. Spalding read the substitute resolution. See page 883.)

The Committee has unofficially considered the revised version and has officially considered the original resolution. It is more or less a question of forcefully expressing the same idea.

THE SPEAKER: The Speaker rules that this resolution should be sent back to the Reference Committee and reported on at tonight's session.

XI-3. ON STANDING COMMITTEE REPORTS

(Postgraduate Medical Education Committee, VIII-6)

DR. SPALDING: The Report of the Committee on Postgraduate Medical Education shows an enormous amount of excellent work, giving the programs of both the current year and the proposed program in the year to come. It is quite astounding that the medical attendance in this state represents somewhat more than 50 per cent of the roster of the State Society.

We heartily endorse this report and move its adoption.

The motion was seconded by C. T. Ekelund, M.D., of Oakland, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Public Relations Committee, VIII-7)

DR. SPALDING: The Report of the Public Relations Committee is brief and to the point, and has three recommendations. The committee endorses the report and these recommendations, and I move its adoption.

The motion was seconded by S. L. Loupee, M.D., of Cass, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Ethics Committee, VIII-8)

DR. SPALDING: We endorse the Ethics Committee report, and I move its adoption.

The motion was seconded by C. E. Simpson, M.D., of Wayne, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Medical-Legal Committee, VIII-5)

DR. SPALDING: The Report of the Medical-Legal Committee is endorsed, and I move its adoption.

The motion was seconded by J. A. Wessinger, M.D., of Washtenaw, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Maternal Health, VIII-1)

DR. SPALDING: The Report of the Committee on Maternal Health gave us most gratifying and surprising information about the low mortality rate in small

hospitals. There are no recommendations made. The report is endorsed, and I move its adoption.

The motion was seconded by Dr. Ellet of Berrien, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Child Welfare Committee, VIII-12, and Iodized Salt Committee, VIII-11)

DR. SPALDING: The Report of the Child Welfare Committee, together with the subcommittee report on Iodized Salt. The committee is to be immensely complimented on its work in Washington, in which they have apparently been able to reinstate the therapeutic label.

The committee moves the adoption of this subcommittee's report on Iodized Salt. This comes as a part of the report of the Child Welfare Committee as a whole, which is printed in the Handbook, a page and a half, together with the supplementary report given to you this morning. Both the original report as printed and the supplementary report as given this morning are endorsed. I move the adoption of the entire report of the Child Welfare Committee.

The motion was seconded by Donald R. Brasie, M.D., of Genesee, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Heart and Degenerative Diseases, VIII-13)

DR. SPALDING: The Report of the Committee on Heart and Degenerative Diseases is endorsed, with a single exception of this statement, "The upper limit of normal blood pressure is much lower than formerly supposed and is now considered 130 mm. systolic." The committee feels that such dogmatic statements should not appear in this report, and it is deleted. With that exception, the report is endorsed as it is written, and I move its adoption.

The motion was seconded by C. E. Dutchess, M.D., of Wayne, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Industrial Health Committee, VIII-16)

DR. SPALDING: The Report of the Committee on Industrial Health is endorsed, and I move its adoption.

The motion was seconded by T. E. Hoffman, M.D., of Tuscola, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Mental Hygiene, VIII-14)

DR. SPALDING: The Report of the Committee on Mental Hygiene is endorsed, and I move its adoption.

The motion was seconded by G. C. Penberthy, M.D., of Wayne, put to a vote and carried.

XI-3. ON STANDING COMMITTEE REPORTS

(Distribution of Medical Care, VIII-4)

DR. SPALDING: On the Report of the Committee on the Distribution of Medical Care, there was prolonged and quite intense discussion by the Reference Committee. The Reference Committee feels they cannot endorse the statements of the Committee on the Distribution of Medical Care on the matter of liberalization of the requirements of specialty boards as a whole. We feel the educational requirements of the specialty boards are not too high, but that the fault lies in the fact that these requirements may be so applied as to unfairly exclude certain qualified physicians and thus create a virtual monopoly.

With this exception, your committee recommends the adoption of this report.

THE SPEAKER: Is there any support to that?

The motion was seconded by Dr. Dutchess of Wayne.

THE SPEAKER: It has been moved and supported that the report of this committee be adopted. Are there any remarks?

G. L. MCCLELLAN, M.D., (Wayne): Are we to understand that the section read by Dr. Spalding has been deleted from the report?

THE SPEAKER: That is the way I would rule.

DR. MCCLELLAN: They do not approve of the statement that the Specialty Board's requirements are now too high?

THE SPEAKER: That is right.

Are there any further remarks?

H. H. LUCE, M.D., (Wayne): In all due respect to the Chairman of that Committee, I don't know just what he means.

THE SPEAKER: Will Dr. Spalding explain what he means?

DR. SPALDING: Dr. Luce, I have been called many things in my life, but ambiguity is not one of them, ordinarily.

Possibly it will clarify the situation if I read one or two excerpts from this report.

The Committee on the Distribution of Medical Care, in submitting this report, makes no recommendations to the House of Delegates, but they did pass a resolution, which they forwarded to The Council for their action during the year.

They narrate in the body of the report that considerable discussion occurred during the year, particularly on the situation in Genesee County, and, quoting from the report—

> "This discussion was summed up into two points:
> "1. Specialty Boards have too rigid requirements.
> "2. Lay groups must be impressed that there are qualified physicians who are not members of the specialty boards."

The committee discussed this at great length, and with a good deal of unanimity. It felt that it was a rather extraordinary statement to make, that lay groups must be impressed by the fact that there were qualified physicians who were not members of these various boards. I don't know why the State Medical Society should take it upon itself to impress the laity with information of this sort, particularly as the purpose of a specialty board is to increase the quality of medical education and medical practice in the country.

Going on to the fine print at the end of their report, in which they quote their resolution, which they have forwarded to The Council:

> "The selection, by lay boards dealing with crippled and afflicted persons, of specialists designated as such by the various Medical Specialty Boards, has served to dislocate the orderly practice of medicine so that physicians qualified by years of experience are denied the privilege of rendering service."

Parenthetically, I might remark that just because one has had fifty years of service at the bedside without a death does not qualify a person as a specialist in that disease. To continue with the report to the Council:

> "Any movement looking toward better medicine and surgery for the public must be applicable to the profession as a whole and not to only a chosen few if there is to be any general support for the movement."

If you are attempting to make specialists of the entire profession, then I do not know what the meaning of "specialization" is.

Going on with the quotation:

> "THEREFORE, BE IT RESOLVED, That action be initiated towards a liberalization of requirements as set by the various specialty boards so that the factor of experience be given its due weight in the qualification of candidates for license from these specialty boards.
> "The committee suggests to The Council that it instruct our delegates to the A.M.A. to bring this matter to the attention of the House of Delegates of the A.M.A. at its next annual meeting."

There are seventeen specialty boards, and the great majority of these are functioning effectively and with very little fuss. The particular thing that is a tempest in a teapot concerns the orthopedic situation in the State of Michigan, particularly. There may be some other exceptions, but that is the most important one. To damn the specialty boards as a whole on account of a rumpus that has been aroused because of certain highly specialized work in one particular department is highly unfair to this whole movement, which the Reference Committee feels is a very laudable movement, and it is on that account that we have made the particular recommendations.

You understand that your Committee on the Distribution of Medical Care, although they forwarded a resolution to The Council, have made no recommendations to the House of Delegates. They are merely expressing their opinion, and we in turn, as a Reference Committee, are expressing our opinion of their opinion.

RALPH H. PINO, M.D. (Wayne): Could we hear their opinion again? You have arranged the report. Do I understand that right?

THE SPEAKER: No, in this case, Dr. Pino. They have merely deleted a certain portion of the report, that portion concerned with the requirements of specialty boards.

DR. PINO: It seems to me then that this Reference Committee should try to understand and clarify that situation. I am thoroughly in accord with the specialty boards, but certain situations arise. We cannot just shut off the criticism that comes from men who do not happen to have been admitted to these boards, some of them definitely older men.

I think Dr. Spalding is entirely right in saying that we should not deride the high standards of the boards, but I do think we should pass by the request of men doing special work, who perhaps have gone long past the years when they feel they could pass that board, and when they are saying that they feel they should be able to fill out that blank. I think it would be likely that we would work them into the service if we needed them to take visions, if we were, let us say, recruiting soldiers.

I wish this Reference Committee would understand and say that the spirit of the Committee on the Distribution of Medical Care in recommending this was correct.

D. R. BRASIE, M.D. (Genesee): This question does not involve specifically the orthopedic situation in Genesee County. It is a broader question than that. We found last year that the rank and file of general practioners in Genesee County could not certify to the School Board that a child they had taken care of since birth had a heart condition; it must be certified by a registered, qualified cardiologist. There are none in Genesee County. The point is not whether the specialty boards have a function and a place. They came in to properly qualify specialists. I don't think there is any quarrel about that. However, the quarrel seems to be as to how these men shall be qualified.

Now I speak not only for some of the older men, who by reason of the fact of economic circumstances or any other reason, were unable to spend three to five years in postgraduate study in a teaching institution and thereby qualify to a specialist board; I also speak for these men who have not as yet entered the study of medicine. Many of the men who are now at the head of the specialty boards did not serve any extended period of internship. Where did they get their training and their experience that put them there? From sixty years bedside service, without the loss of a patient.

There are two ways to qualify and gain knowledge. One is, by preference, if you please, three to five years extra training in the university or teaching institution. We would all prefer that, could we have it, but there are many very bright men in medicine who, if the specialty boards are allowed to require that and require that solely, will never attain the position they should. I speak for the men as yet coming into medicine, who will not have the money to spend on these years of training.

Now, you have already set up a postgraduate training course in the State of Michigan. If that course is to amount to anything except a sop to the general practitioner, if these certificates that are being passed out are going to mean anything except another piece of writing, then you must provide in your teaching institution ways and means by which a man who can not spend three to five years entirely in a teaching institution may attain the knowledge and the requirements to qualify him as a specialist. That can be done through your specialist training, through your postgraduate training, and through adequate examinations by these same people who teach the men for three to five years.

It says in most of the requirements of the specialty boards that they will accept three to five years special training or its equivalent. If they will accept its equivalent and if they will establish an equivalent fair and square, that an individual who is out ten years can meet, then they have been fair and have fulfilled the functions, and they will admit into their body, rightly and justly, men who have acquired their training outside of teaching institutions.

T. K. GRUBER, M.D. (Wayne): Mr. Speaker, I think the wording of the report has missed the boat, in what they intended to say. So far as the specialty boards are concerned, I am very much in agreement with them. On the other hand, when it comes to the application of the principle that a man must have passed a specialty board, just as Dr. Brasie said, in whatever county he lives, they do not have any heart specialists that have passed the board. In many of the counties there are no psychiatrists who have passed the board. If we were to decide that no person could be judged insane unless a man who had passed the Specialty Board of Psychiatry had passed on him, we would have very few people judged insane in Michigan. So it is with many of the other specialty boards.

I do not think we are in position in this country yet —and maybe we never will be—to apply the rule that if a man is going to give an opinion on a heart, on a mind, on a broken bone or something else, he must have passed a specialty board. It is all right to say that man is a specialist because he has passed the board and all that, but if you start to apply this thing, you have the whole works gummed up. I just don't think we are ready for it, and I think we are trying to get the cart just about two miles ahead of the horse.

I believe the specialty boards are all right. There are admittedly, by the man in Wayne County, so I am told, some eight hundred specialists on all the various branches. How many of those men are specialists, I don't know. On the other hand, I don't care what county you go in, outside of the largely populated counties, you will find very few men who have passed any of the specialty boards.

THE SPEAKER: The Chairman of the Reference Committee has the floor.

DR. SPALDING: Most of us are looking a good deal more eye-to-eye on this problem than would seem to be the case from the discussion that has come up. The point is that we are trying to get it down on paper to express what most of us really mean. I do not differ with Dr. Brasie or with Dr. Gruber anywhere near as much as it seems on the surface.

If you will listen to this one sentence, I think you will see that the Reference Committee has tried to embody this in their statement: "We feel that the educational requirements of the specialty boards are not too high, but that the fault lies in the fact that these

requirements may be so applied as to unfairly exclude certain qualified physicians and thus create a virtual monopoly."

In other words, we want to leave the boards and their high standards as they are, but if you don't need that high bit of standardization, then you can take another standard of qualification. That is what we are trying to get across, not to condemn or lessen the qualifications of the specialty boards.

C. E. Toshach, M.D. (Saginaw): I think we all ought to think about what Dr. Cummings said a few minutes ago. The reason these men have to go to these different towns and pass the specialty board is not because those towns want them to do so; it is because the federal funds that help to pay the expense demand that the man who is on the board be called. The federal funds are not given unless the man is passed by the board. If we do not want to continue such a government, we have an election in November.

P. L. Ledwidge, M.D. (Wayne): As a member of the Reference Committee, I would like to remark that I think the Reference Committee has done as much as it can on this. No recommendations were made. Is it not right that the Reference Committee can only review what has been done and not bring in new recommendations?

Now, what we did was simply to go over this. We did not agree with all of it. We had some other thoughts along the same line, and we simply added that to what was already there. I believe that is complete so far as the work of the Reference Committee is concerned, and that, with these other thoughts that have been expressed here, can be taken into consideration by our delegates to the A.M.A. There are no recommendations. Therefore, I don't see how any action can be taken other than that.

Dr. Gruber: Mr. Speaker, I move that this report be returned to the Reference Committee.

The Speaker: There is already a motion before the House.

The Speaker: The question has been called for. Does everyone understand the question?

Upon a request from the House, the Speaker read the recommendation of the Reference Committee.

The Speaner: The motion was made for the acceptance and adoption of that report, and that was supported. That is the question before the House. Now you have heard the question. All in favor of the question say "aye"; opposed the same.

The motion is lost.

Henry Luce, M.D. (Wayne): Mr. Speaker, I move that that matter be again referred to this same committee with the request that a recommendation be reported at the next session.

The motion was seconded by Dr. Ellet of Berrien.

The Speaker: It has been moved and seconded that this question again be referred to the same committee, with the recommendation that they report at the next session. Are there any remarks?

P. L. Ledwidge, M.D. (Wayne): Does Dr. Luce mean that we make recommendations to the House of Delegates as to what action shall be taken by the members of the A.M.A. or delegates?

Dr. Luce: Mr. Speaker, replying to the doctor's question, it is my personal feeling—I don't know about the other A.M.A. delegates—that in appearing before the House of Delegates of the A.M.A. we must say that the Michigan House of Delegates instructed us so-and-so, in order to have any emphasis back of it.

The Speaker: All in favor of the motion say "aye"; opposed the same. The motion is carried. This will be referred to the Reference Committee to report at this evening's session.

L. J. Hirschman, M.D. (Wayne): I would like to raise a point of order. We have accepted the paragraphs on the reports of the various standing committees, but we have not accepted the report of the committee as a whole.

The Speaker: You are perfectly right.

Dr. Hirschman: I move, sir, that the report of the Reference Committee on Standing Committees be accepted as a whole, with the exception of the matters which have been referred back.

The motion was seconded by Dr. Gruber of Wayne, put to a vote and carried.

XI-4 ON SPECIAL COMMITTEE REPORTS

(Radio—IX-4)

The Speaker: We will now have the Report of the Reference Committee on Special Committees.

A. V. Wenger, M.D.: This report embraces the reports of the Committee on Nurses' Training Schools, Conference Committee on Pre-Licensure Medical Education, Membership Committee, Radio Committee, Advisory Committee to Woman's Auxiliary, and Scientific Work Committee.

The Annual Report of the Radio Committee: Your Committee has read with approval the report of the Radio Committee and has noted its supplemental report as submitted to the House of Delegates this morning. Your Committee recommends respectful attention to the coördination with radio programs of other health and health education agencies.

Mr. Speaker, I move the acceptance of the report.

The motion was seconded by J. A. Kasper, M.D., of Wayne, put to a vote and carried.

XI-4. ON SPECIAL COMMITTEE REPORTS

(Advisory Committee to Woman's Auxiliary, IX-5)

Dr. Wenger: The next is the Report of the Advisory Committee to Woman's Auxiliary. Your Committee has noted the report of the Advisory Committee and recommends that in the future the committee constitute itself a liaison committee to report annually to the House of Delegates concerning the year's work of the Woman's Auxiliary.

Mr. Speaker, I move that the report be accepted.

The motion was seconded by several, put to a vote and carried.

XI-4. ON SPECIAL COMMITTEE REPORTS

(Membership Committee, IX-3)

Dr. Wenger: Annual Report of the Membership Committee: Your Committee notes with gratification that the present membership of 4,436 constitutes an all-time high. The remainder of the report of the Membership Committee is endorsed as it appears in the Handbook.

Mr. Speaker, I move that the report be accepted.

The motion was seconded by Charles S. Kennedy, M.D., of Wayne, put to a vote and carried.

XI-4. ON SPECIAL COMMITTEE REPORTS

(Nurses' Training Schools, IX-1)

Dr. Wenger: Annual Report of Committee on Nurses' Training Schools: Your Committee notes the impassé confronting the small hospital which wants a nurses' training school. It sees no prospect of solution but recommends that the present committee be continued and instructed to keep in touch with the situation.

Mr. Speaker, I move that the report be accepted.

The motion was seconded by E. A. Oakes, M.D., of Manistee, put to a vote and carried.

XI-4. ON SPECIAL COMMITTEE REPORTS

(Scientific Work, IX-6)

Dr. Wenger: On the Report of the Scientific Work Committee: Your Committee congratulates the officers

and the Scientific Work Committee on the arrangement and scope of the scientific program which begins tomorrow morning. We bespeak the attendance and interest that its merit deserves.

Mr. Speaker, I move that the report be accepted.

The motion was seconded by Dr. Kasper of Wayne, put to a vote and carried.

XI-4. ON SPECIAL COMMITTEE REPORTS

(Prelicensure Medical Education, IX-2)

Dr. Wenger: On the Report of the Conference Committee on Prelicensure Medical Education, your Committee has read with approval the pioneer work of this Committee and recommends its continuation.

Mr. Speaker, I move the report be accepted. The motion was seconded, put to a vote and carried.

Dr. Wenger: Mr. Speaker, I move that the report be accepted as a whole.

The motion was seconded by Dr. Snapp of Kent, put to a vote and carried.

The Speaker: The next order of business is the Report of the Reference Committee on Amendments to the Constitution and By-Laws.

XI-5. ON AMENDMENTS TO CONSTITUTION AND BY-LAWS

(Re Finances, VII-1)

C. F. DeVries, M.D.: The first proposed amendment to the Constitution was submitted by Paul W. Kniskern, M.D., of Kent County, to change Article IX, Section 4, to read:

"The Secretary shall collect all annual dues and all monies owing to the Society, depositing them in an approved depository and disbursed by him upon order of The Council, or invested by him in United States Government bonds with approval of The Council.

The Committee feels that this proposed amendment is unnecessary. The argument seems to be upon the interpretation of the word "disbursed." It is the consensus of the Committee that disbursed also means invested. We, therefore, recommend that this proposed amendment be rejected.

The Speaker: Is there a support to that?

Dr. Ellet (Berrien): I support it.

The Speaker: You have heard the motion and the recommendation, and it is supported. Is there any remark?

The motion was put to a vote and carried.

Dr. DeVries: The next proposal:

XI-5. ON AMENDMENTS TO CONSTITUTION AND BY-LAWS

(Re Past President, VII-2)

"Be it hereby resolved, That Article IV, Sections 1 and 2 of the Constitution be amended to provide for the retention of Past Presidents as Delegates at Large with power to vote."

There is a note that the wording of the amendment is to be determined by the Committee on Amendments to the Constitution.

We studied Sections 1 and 2, and we would like to recommend that they be left as they are, and that Section 3 be changed to read as follows: "The Officers of this Society, Past President, and Members of the Council shall," and so forth, and so forth.

In other words, we are adding the words in Section 3, "Past Presidents." We feel that that would cover the purpose of this proposed change.

I move the acceptance of this report.

The motion was seconded by C. F. Brunk, M.D., of Wayne.

Henry Luce, M.D., (Wayne): Do I understand then the House of Delegates would be constituted of the legally elected delegates, the members of the Council, and officers of the Society, and the Past Presidents? Is that the interpretation?

The Speaker: I will ask Dr. DeVries to give the explanation.

Dr. DeVries: No, this article, as we proposed it, would read as follows: "The officers of this Society, Past Presidents, and members of the Council shall be ex-officio members of the House of Delegates, without power to vote."

The Speaker: You have heard the motion, made and supported. Are there any more remarks? If not, all in favor say "aye."

Dr. Reeder: I just don't see the necessity of this. The members of the Council and the Past Presidents have always been welcome in this House of Delegates. What is the need of it? What have you added in giving the Past Presidents permission to attend but no power to vote? They have always been welcome without power to vote. Naturally, they should be. I don't see what you have gained.

C. K. Hasley, M.D. (Wayne): We have in our presence Dr. Luce, just to give an example, who is one of our Past Presidents. He was duly elected as a delegate by the Wayne County Society. If such an amendment to the Constitution were adopted, he would not have power to vote. I don't see the necessity for that amendment.

W. C. Ellet, M.D. (Berrien): Mr. Speaker, I might explain that. That will not prevent Dr. Luce from being a duly elected delegate from Wayne County. But Wayne County has five or six Past Presidents. If each Past President were allowed to vote, that would increase the delegation of Wayne County to that many men.

I think Dr. DeVries can explain to you the reason for that amendment in the first place; that is, in regard to why the Past Presidents wanted to feel free to come in here.

The Speaker: Dr. DeVries, do you wish to say anything further?

Dr. DeVries: I think Dr. Ellet has explained it. They are not mentioned in the present provision, and whoever submitted the proposal I think wanted to have them officially recognized to be here as visitors.

These are proposed amendments to the Constitution and have to be tabled for one year.

Dr. Gruber: If I am able to understand the English language, the officers of this Society, Past Presidents and members of The Council shall be ex-officio members of the House of Delegates without power to vote. There are several Past Presidents here—Dr. Robb, Dr. Penberthy, Dr. Luce—and they would not have the power to vote even if they were elected delegates. I think it would be a very improper thing to even give any person a chance to argue about it.

Dr. Luce: Do I understand, as a point of order, that this is a change in the Constitution?

The Speaker: It is, Doctor.

Dr. Luce: Then it is my understanding, Mr. Speaker, that all that is necessary for you to do is lay it on the table for another year, because it cannot be acted on.

The Speaker: You are perfectly right. However, I thought it was put through the regular machinery of acceptance and adoption and then laid on the table. If it is merely laid on the table after reading by the Chairman of the Reference Committee, I am in error. It was my impression that it first had to be voted on.

The Speaker: It will be referred to the Reference Committee of 1941.

XII. Unfinished Business

XII-1. RE MEMBERSHIP CLASSIFICATION AMENDMENTS TO CONSTITUTION ARTICLE III—SECS. 1, 2, 3, 4, 8

DR. DEVRIES: There are several proposals to change the Constitution of the Michigan State Medical Society presented at the 1939 session of the House of Delegates.

Article III, Section 1, amend to read as follows:

"This Society shall consist of active members, honorary members, associate members, retired members, and members emeritus."

I move the adoption of this proposed change. Motion was seconded and carried.

DR. DEVRIES: To continue with Section 2, the proposed amendent reads as follows:

"Active Members.—Active members shall comprise all the active members of component county societies. To be eligible for active membership in any component county society, every person must be under license to practice medicine and surgery and midwifery by authority of the Michigan State Board of Registration in Medicine."

I move the adoption of this proposed amendment.

The motion was seconded by Dr. Hirschman of Wayne, put to a vote and carried.

DR. DEVRIES: Article III, Section 3, to be amended as follows:

"Honorary Members.—County Societies may elect as Honorary Members any persons distinguished for their services or attainments in medicine or the allied sciences, or other services of unusual value to organized medicine or the medical profession. Upon recommendation of a County Society, the House of Delegates may elect such persons as Honorary Members of the State Society.

"Honorary members shall not pay dues and shall not have the right to vote or hold office in any County Society or the State Society."

I move the adoption of this proposed amendment.

The motion was seconded by Dr. Reveno of Wayne, put to a vote and carried.

DR. DEVRIES: Article III, Section 4, amend to read as follows:

"Associate Members.—County Societies may elect as Associate Members:

"1. Persons not members of the profession but engaged in scientific or professional pursuits whose principles and ethics are consonant with those of this Society.

"2. Internes serving their first year in any approved hospital, internes of longer standing, resident physicians in training, and teaching fellows not engaged in private practice, but not after five years from the receipt of first medical degree (M.D. or M.B.).

"3. Commissioned medical officers of the United States Army, Navy, Public Health Service and Veterans' Administration on duty in this state who are not engaged in private practice of medicine.

"4. Physicians not engaging in any phase of medical practice.

"Upon recommendation of a County Society, the House of Delegates may elect such persons as Associate Members of the State Society. Associate Members shall not pay dues in the State Society, nor shall they have the right to vote or hold office in either County or State Society.

"County Societies may require Associate Members to pay certain local dues, out of which THE JOURNAL subscription is to be paid to the State Society and for which such Associate Members shall receive THE JOURNAL."

I move the adoption of the proposed amendment.

The motion was seconded by Frank Reeder, M.D., of Genesee.

DR. GRUBER: This amendment penalizes the man who graduates from a medical school outside of the state, maybe even from Ann Arbor. For instance, the University of Detroit does not give the degree of M.B. or M.D. until after the interne has served one year. I don't know what the arrangement is in Michigan, but I believe they get their M.D. at the time they graduate. In other institutions, outside of the state, they receive their M.D. or M.B. at the time they graduate. So the men who are graduating from schools where they get their M.D. at the time of graduation are penalized one year, in reference to those who would have longer. Those men would have five years, and the other men would have six years after graduating from medical school.

J. A. KASPER, M.D. (Wayne): Unless the situation has changed recently, Wayne University also grants a degree of M.D. before the internship year is completed.

The question was called for, the motion put to a vote and carried.

DR. DEVRIES: Article III. It is proposed to add a new section as follows:

"Section 7. *Non-Resident Members.*—County Societies may elect and retain as Non-Resident Members, physicians residing and practicing outside of the County who are members in good standing of their own County Medical Society. Non-Resident Members shall not have the right to vote or hold office."

I move the adoption of this addition to Article III. (Subsequently this was reconsidered—see page 879—and Section 7 was renumbered Section 8.)

The motion was seconded, put to a vote and carried.

XII-2. AMENDMENT TO CONSTITUTION RE MEMBERSHIP OF THE SOCIETY OFFICERS IN THE HOUSE OF DELEGATES ARTICLE IV—SEC. 3

DR. DEVRIES: Article IV, Section 3. Amend to read as follows:

"The officers of this Society and the members of The Council shall be ex-officio members of the House of Delegates, and, with the exception of the Speaker of the House of Delegates, shall be without power to vote in the House of Delegates."

I move the adoption of this amendment.

The motion was seconded by Dr. D. Bruce Wiley of Macomb, put to a vote and carried.

DR. ELLET: I rise on a point of order. I want the House polled, because to adopt an amendment to the Constitution requires a two-thirds vote. I call your attention to Article XII.

THE SPEAKER: You are right. The Chair was judging from the sound of the voices.

DR. ELLET: Mr. Speaker, I want the total number of delegates in the House now. I doubt there are two-thirds of the members present.

THE SPEAKER: All right. Sergeant-at-arms, will you poll the delegates?

DR. ELLET: I ask the Secretary to call the roll, Sir.

THE SPEAKER: Will the Chairman of the Credentials Committee make a judge as to the number of delegates present and whether or not there is a quorum.

DR. ELLET: Mr. Speaker, what is the total number of registrations for this afternoon's session?

THE SPEAKER: What were the total number of registrations for this afternoon?

DR. FOSS: I think there were about eighty-four.

THE SPEAKER: How many are present now?

DR. FOSS: Fifty-two, and 40 per cent constitutes a quorum.

THE SPEAKER: A quorum is present.

Now, what is your wish, Dr. Ellet?

DR. ELLET: I am still voting "no," Sir, leaving the Chair to rule.

THE SPEAKER: The Chair is ruling by the vociferousness of the various delegates, and so far has ruled that it has been a two-thirds majority.

The last amendment was carried.

XII-3. AMENDMENT TO CONSTITUTION RE JUNIOR MEMBERSHIP, ARTICLE III—SECS. 1, 2

DR. DEVRIES: Proposed amendment to the Michigan State Medical Society Constitution, Article III, Section 1, line 2, after the first word "members," by inserting the words "junior members."

I move the adoption of that amendment.

The motion was seconded by Dr. Kasper of Wayne, put to a vote and carried.

DR. DEVRIES: To amend the Constitution, Article III, Section 2, by inserting a new section to be known as Section 3, to read as follows:

"*Junior Members.*—Physicians who are Internes (or Residents) in recognized hospitals of Michigan and who hold the degree of Doctor of Medicine, or who upon completion of their internship will be awarded such degree, issued to them by an institution of learning accredited by the American Medical Association are eligible for Junior Membership. They shall be entitled to receive the publication of the Society at such rates as The Council may, from time to time, determine. They shall not have the right to vote or hold office. With the approval of The Council, such a Junior Member, who shall have been awarded the degree of Doctor of Medicine, may be continued as a Junior Member for a reasonable period after completion of his hospital work, to permit him sufficient time to comply with the eligibility requirements of his county society."

I move the adoption of that addition.

The motion was seconded.

The motion was put to a vote and carried.

XII-4. AMENDMENT TO CONSTITUTION RE RENUMBERING OF SECTIONS, ARTICLE III—SECS. 3, 4, 5, 6 TO SECS. 4, 5, 6, 7

DR. DEVRIES: Amend the M.S.M.S. Constitution, Article III, by renumbering old Sections 3, 4, 5, and 6 to read 4, 5, 6, and 7, respectively.

I move the adoption of that.

XII-5. RECONSIDERATION OF NUMBERING NEW SECTION 7 OF ARTICLE III (See Page 878) TO SECTION 8

DR. GRUBER: A point of information. Didn't they add a new Section 7 a little while ago?

THE SPEAKER: It has been mentioned there.

DR. GRUBER: Then you would have No. 8 instead of No. 7, for the section you mentioned a little while ago.

DR. DEVRIES: That is right. That will be corrected.

DR. GRUBER: Mr. Speaker, is it in order to reconsider the action on the former Article III, Section 7?

THE SPEAKER: Yes.

DR. GRUBER: I move that we reconsider our action on the adoption of the additional section, No. 7, on Non-Resident Members.

The motion was seconded by Dr. Oakes, put to a vote and carried.

DR. GRUBER: Mr. Speaker, I believe it would be the duty of the Chairman to reread the recommendation.

Dr. DeVries reread the proposed amendment on Non-Resident Members.

DR. GRUBER: You said, Section 7 be added. Now instead of saying 7, you can say that Section 8 should be added.

DR. DEVRIES: This would be Article III, Section 8. I move the adoption.

The motion was seconded by Dr. Snapp of Kent, put to a vote and carried.

DR. DEVRIES: I move the acceptance and adoption of the report as a whole.

The motion was seconded by Dr. Simpson of Wayne.

THE SPEAKER: We do not have a sufficient number of delegates present to vote upon this question.

We will have to waive the consideration of it until we get a quorum or two-thirds of the members registered at that session. If necessary, we will have to wait until tonight.

DR. HIRSCHMAN: I move that the report be deferred until this evening, and then we can vote on the report as a whole. The motion was seconded and carried.

DR. REEDER: Mr. Speaker, I move that we recess until eight-fifteen this evening.

The motion was seconded by Dr. Hirschman, put to a vote and carried, and the meeting recessed at six-ten o'clock.

Tuesday Evening Session

September 24, 1940

The meeting was called to order at eighty thirty-five o'clock, Dr. Stryker, the Speaker, presiding.

THE SPEAKER: This is a recess session of the Second Session of the House of Delegates.

At this time, I would like to call on a friend and an honored guest, who is with us tonight. We will set aside the usual order of business to listen to Mr. Dwight Anderson, Director of the Public Relations Bureau of the Medical Society of New York, who will speak to us for a while at this time. Mr. Anderson.

ADDRESS OF DWIGHT ANDERSON

MR. DWIGHT ANDERSON: Mr. Speaker and Members of the House of Delegates of the Michigan State Medical Society: I bring you greetings from the Medical Society of the State of New York.

As I stand here before your microphone, I am reminded of Dr. Holman Taylor's remark once in addressing the House of Delegates of the A.M.A., when he said that a microphone isn't worth a damn if you don't hit it. (*Laughter*)

I feel that I am taking back to New York a great deal more than I can possibly bring here. I appreciate coming out here. Your group, being so homogeneous, it seems to me, presents a typical picture of medicine at its best. I feel that your progressive qualities are something that we can very well emulate.

For example, the first letter I received from Dr. Foster explained in full what he would like to have me do, when to be here, precisely what the accommodations and arrangements would be. Subsequently, I received two or three letters from Mr. Burns, and someone was appointed to meet me at the train, take care of me, bring me to the hotel and show me around. That is something we do not do. I think that in New York it must be a very uncomfortable experience for strangers invited to come to our meetings as our guests to have to find their way around.

As a matter of fact, I remember an instance when I first came with the Medical Society of the State of New York, where that was illustrated. At that time, I was starting new, and I had not fully acquainted myself with some of the speakers on the program. One of them was a very eminent anatomist from Cleveland, Dr. T. Wingate Todd. There was nothing in his paper I remember; it had been passed by the committee as having nothing of news value, so it slid out of my recollection. Many of you will remember Dr. Todd, who, unfortunately, passed away about a year or so ago.

Dr. Todd came into the Press Room one morning. He was a rather angry Scotchman. I don't blame him. He had walked up from the station and was trying to find out where he was supposed to go. He came into the Press Room and said, "I am T. Wingate Todd."

I said, "How do you do, Mr. Todd?" I was in rather bad shape right then.

Then he said, "I am from Western Reserve University."

I said, "A very good school. I went there myself." (*Laughter*)

Things became rapidly worse, until finally I tumbled to the fact; my secretary, I think, tipped me off. So I stopped work immediately and took Dr. Todd up to the University Club, where there was a session of the medical men who were getting ready for the meeting, and we saw that he was properly taken care of.

I am going back to New York, and I am going to take this knowledge with me, and I feel we will certainly want to do as you are doing next year.

Then the Office Secretaries' Meeting this noon was an illuminating example of what can be done in establishing public relations by increasing the efficiency of the office secretaries.

Another thing that I wanted to learn—and I was particularly asked to inquire—is why it is that everywhere our salesmen who sell exhibit space at our meeting go they are quoting the Michigan State Medical Society. The exhibitors all want to know why the New York State Medical Society does not have the men out to observe the exhibits and have them so arranged that they will be more accessible. So I am taking that back, too.

I am going to talk for only a few minutes. I have only one or two things I would like to say.

When we started our Bureau, it was a moot point whether or not we should call it a Public Relations Bureau and Information Service, or camouflage it and call it by some other name, a secretaryship or something of that kind. We went pretty thoroughly into that, and decided—and it has been proved to be the case—that it is wiser for us to establish a Public Relations Bureau and call it a Public Relations Bureau. We felt that our releases going out to newspapers would be accepted as being correct and accurate when the responsibility of their authorship was traceable definitely to a representative group in the community.

In the six years that we have been in existence we have not had an instance where a slighting or disparaging statement has been made by any journalist or anyone else connected with the avenues of communication, criticizing us for having our Bureau. We started out to try to establish with the press and with others a reputation for truth and accuracy, feeling that in a day when the opportunities for the dissemination of information were so clogged by our modern civilization the profession did well to do so, and had a perfectly good right to establish a function of interpretation.

We have also had the problem of taxation come up. Some of us have been a little concerned as to whether or not such activities subjected us to income tax. We have had that passed on by men in Washington, private counsellors, and men in New York who have gone thoroughly into the law, and have established to our satisfaction that a Public Relations Bureau, such as we have conducted, does not render the organization subject to income tax.

So far as our success is concerned, it was indicated to me that perhaps I might say something about that. All I can say, inasmuch as I have been doing the work for the Committee and under the guidance of our Council, is that at first it was felt that we were doing a pioneering and a new thing. Many thought it would not last. From many standpoints, it seemed to violate the traditional principles of the profession, but we drew quite a line between individual personal aggrandizement and the reputation of the group, and we hewed pretty carefully to the policy of permitting the men to be quoted who were most nearly concerned with the subject matter. The officers of the Society, when it properly would fall within the functions of their office to make a statement, were the ones to make it. In other examples, we had chairmen of committees and various other individuals. We have yet to be criticized for the selection of any individual who has spoken.

In fact, some of the things that it was thought would get us into trouble have not gotten us into trouble at all. It has been very interesting to watch the development. We will begin next January our seventh year, and we feel that we are better understood. We feel that the money we spend is by way of insurance. We feel that the fact that we have the machinery for molding public opinion and for interpreting the medical profession's ideas and principles to the public acts as a deterrent against certain encroachments which formerly were made by certain groups who do not see eye to eye with the medical profession. They are intangibles. They cannot be measured. The imponderables are sensed rather than computed.

We have continued to renew our Public Relations Bureau at each meeting of the House of Delegates. Reference committees have gone over our work. On the whole, I think we can say now that we have definitely passed the time when it can be said to be an experiment, and we can say that wholeheartedly today the medical profession in the State of New York feels that it is worth while to have the Public Relations Bureau.

I thank you for this opportunity to speak before you. I feel honored to be given a chance to say these few words to you now. Thank you. (*Applause*)

THE SPEAKER: Thank you, Mr. Anderson.

* * *

We are now continuing the afternoon session, which was recessed until this evening.

We were considering the reports of reference committees, and it reached the stage of the report of the Reference Committee on Amendments to the Constitution and By-Laws. The question of amendments to the Constitution and By-Laws had been discussed, and a motion had been made by the Chairman of the Committee that the report of the Committee on Amendments to the Constitution and By-Laws be accepted as a whole.

No vote having been taken upon this question, I will at this time call for discussion.

THE SPEAKER: The question has been called for. Those of you who are in favor of the motion will say "aye"; those opposed will signify by the same sign. The motion is carried.

H. F. DIBBLE, M.D. (Wayne): I would like to move that we revert back to new business again, which we left this afternoon.

The motion was seconded by A. E. Catherwood, M.D., of Wayne, put to a vote and carried.

X-4. PROPOSED AMENDMENT TO CONSTITUTION RE SESSIONS AND MEETINGS TO BE NEW ARTICLE XII; AND TO RENUMBER PRESENT ART. XII —AMENDMENTS TO ART. XIII

THE SPEAKER: We are now on New Business.

T. K. GRUBER, M.D. (Wayne): Following the angle of this afternoon, I have a proposed amendment to submit. If it doesn't clarify the situation, I can change it so it does clarify the situation.

Amend the present Article 12, Section 1, line 3, second word, by substituting the word "seated" for the word "present."

Amend the Constitution by adding a new article, which shall be Article 12:

SESSIONS AND MEETINGS.

"Section 1. A session shall mean all meetings at any one call.

"Section 2. A meeting shall mean each separate convention at any one session."

Amend Article 12 by renumering to Article 13.

X-5. PROPOSED AMENDMENT TO BY-LAWS RE "AMENDMENTS" CHAP. 10, SEC. 1

Now, if you will turn to the last page, under Amendments to the By-Laws, Chapter 10, Section 1, line 3, last word, amend by substituting the word "meeting" for the word "session."

Mr. Speaker, I move that the amendment to the By-Laws be laid on the table until the 1941 session.

THE SPEAKER: Is there a second to that motion?

The motion was seconded.

THE SPEAKER: It is moved and seconded that the amendment to the By-Laws as presented now be laid on the table until the 1941 session. Are there any re-

marks? If not, all in favor say "aye"; contrary the same sign. It is carried.

The amendments to the Constitution will automatically go to the next year's session and be referred to the Committee on Amendments to the Constitution and By-Laws at that time.

VI-3. SPECIAL MEMBERSHIP

LUTHER W. DAY, M.D. (Hillsdale): May I present this resolution now?

Dr. Day read a resolution asking that the late Stewart W. Pritchard, M.D., be elected to Honorary Membership.

THE SPEAKER: The resolution of Dr. Day will be referred to the Reference Committee on Resolutions.

At this time we will revert to the order of business. I will entertain a motion to revert to the usual order of business.

Upon motion regularly made and seconded, the meeting reverted to the usual order of business.

THE SPEAKER: I will now call on Dean W. Myers, M.D., Chairman of the Committee on Resolutions.

XI-6. ON RESOLUTIONS
(Special Memberships, VI-3)

DEAN C. MYERS, M.D.: Your Reference Committee on Resolutions begs to report as follows:

There were several resolutions offered with reference to the election of members to special memberships. In accordance with the resolutions offered, your Committee on Resolutions recommends the election of the following members, who have fulfilled the constitutional requirements and have been so certified by the officers of the Michigan State Medical Society, to special membership as follows:

To Emeritus Membership—

W. J. O'Reilley, M.D., Saginaw
Donald K. MacQueen, M.D., Laurium
George Bates, M.D., Kingston
Leslie A. Howe, M.D., Breckenridge
James H. Sanderson, M.D., Detroit
Frank B. Bohn, M.D., Newberry

To Retired Membership—

C. S. Sackett, M.D., Charlotte
E. M. Cooper, M.D., Rockwood
Mark S. Knapp, M.D., Lake Fenton
C. S. Sutherland, M.D., Clarkston
James W. Wallace, M.D., Saline
James F. Breakey, M.D., Ann Arbor
W. E. Wilson, M.D., Kent County
T. W. Hammond, M.D., Kent County

To Associate Membership—

Mr. John R. Mannix, Detroit.

I move that this part of our report be adopted.

T. T. HOFFMAN, M.D. (Tuscola): I second the motion.

THE SPEAKER: You have heard the recommendation, which has been moved and supported. Is there any discussion?

THE SPEAKER: All in favor please say "aye"; opposed, by the same sign. That is carried.

XI-6. ON RESOLUTIONS
(Speaker's Gavel, VI-2)

DR. MYERS: A resolution offered by Dr. Gruber with reference to the retirement of the old Speaker's gavel and the presentation of a new one.

WHEREAS, The gavel used by Speakers of this House of Delegates for many years now has so many names inscribed on it there is scarcely room for another, and

WHEREAS, This old gavel has acquired historic and sentimental value, and

WHEREAS, The Wayne County Medical Society offers to house and display this gavel properly in the society headquarters so long as The Council of the State Society may choose to leave it there; and

WHEREAS, The Wayne Delegation begs leave to present to the House of Delegates, for use by the Speaker, a new gavel and percussion piece made by a member of this Society from oak grown on Mackinac Island, the scene of William Beaumont's great work, therefore be it

RESOLVED, That this House of Delegates retire the old gavel from use, accept the Wayne County Medical Society's offer of housing and display, and permit the Wayne Delegation to present the Speaker with this new gavel.

We recommend the adoption of this resolution.

The motion was seconded by R. M. McKean, M.D., of Wayne, put to a vote and carried.

THE SPEAKER: At this time, when I look at this gavel and see the names of some of the men who handled it, I only hope their successors with the new gavel will do one tenth as well as these men have done.

XI-6. GENERAL PRACTITIONERS IN HOSPITAL (VI-9)

DR. MYERS: The resolution offered by Dr. McClellan, with reference to the consideration of general practitioners, their relationship and opportunities in Class A Hospitals:

WHEREAS, The Board of Trustees of the American Medical Association and the Board of Regents of the American College of Surgeons met in conference at the headquarters office of the American Medical Association on November 16, 1939. Consideration was given to many questions concerned with the appointment of the staffs of hospitals and the manner in which the two organizations could function together in the maintenance of the quality of medical service in our country.

WHEREAS, Since then there has been a purge of hospital staffs which has been a hardship to general practitioners,

WHEREAS, General practitioners are being denied hospital privileges which they have had for years,

WHEREAS, All general practitioners should not be judged as giving poor quality work, because there are occasionally poor practitioners,

WHEREAS, Most general practitioners are anxious to do quality work,

WHEREAS, Many practitioners do and have done excellent work which is above reproach,

WHEREAS, Many minor procedures which have been done well by general practitioners are now called major procedures to be done only by specialists,

WHEREAS, Many doctors have had postgraduate training but are denied recognition because they have not specialized,

WHEREAS, It is unjust to force a general practitioner to refer cases to a specialist when he is capable of taking care of the case himself, therefore, be it

RESOLVED, By the Delegates of the Michigan State Medical Society in session September 24, 1940, that the Board of Trustees of the American Medical Association be requested to urge more just and liberal consideration of hospital privileges for general practitioners in Class A Hospitals.

As to this resolution, the Committee recommends that a study of this recommendation be made by the Committee on Distribution of Medical Care of the Michigan State Medical Society, to be referred to the Executive Committee for action or to be returned to the House of Delegates.

I move the adoption of this report.

The motion was seconded by E. N. D'Alcorn, M.D., of Muskegon, put to a vote and carried.

XI-6. AMENDMENT TO AFFLICTED CHILDREN'S ACT (VI-5)

DR. MYERS: Resolution offered by Dr. Callery, regarding Crippled and Afflicted Children's Acts.

To the Delegates of the Michigan State Medical Society:

WHEREAS, Under the present Crippled and Afflicted Children's Acts, an attempt has been made to take the jurisdiction out of the Probate Court, and great confusion and suffering has resulted therefrom, and

WHEREAS, The allocations made to the individual counties have been made according to the population and should be made according to the needs of the individual counties, and

WHEREAS, The Probate Judges are more familiar with the situation and the needs of the individual cases and can work for better advantage for said children, through the coöperation of the local physicians, and

WHEREAS, Local physicians today are called upon to furnish a great amount of free care, under the present system, or many cases would be neglected. therefore, be it

RESOLVED, That the Michigan State Medical Society recommend that the Legislative Committee endeavor to have the present Afflicted Children's Act so amended that the medical and surgical care of indigent children be removed from the jurisdiction of the Michigan Crippled Children Commission, and that the jurisdiction over all such children's care be returned to the Probate Judges of the respective counties of the state, who, under the Constitution of this State, have the exclusive care and control of indigent children.

St. Clair County Medical Society,
A. L. CALLERY, M.D., Delegate.

We recommend that this resolution be referred to the Legislative Committee of the Michigan State Medical Society.

THE SPEAKER: Is there a second to that?

The motion was seconded by Dr. Novy of Wayne, put to a vote and carried.

XI-6. CHANGE OF COUNTY SOCIETY NAME (VI-4)

DR. MYERS: The resolution offered by Dr. Keyport, with reference to the amalgamation of the O.M.C.O. R.O. and Kalkaska and Gladwin Counties was studied. We recommend the adoption of the resolution reamalgamating the counties of Otsego, Montmorency, Crawford, Oscoda, Roscommon, Ogemaw, Kalaska and Gladwin Counties, to be named "The Medical Society of the North Central Counties."

The resolution offered was as follows:

WHEREAS, The majority of the physicians of Kalkaska County and of Gladwin County (contiguous to the territory of the O.M.C.O.R.O. County Medical Society) are members of the O.M.C.O.R.O. Medical Society; and

WHEREAS, These physicians of Kalkaska and of Gladwin Counties feel that greater good can be accomplished by their counties becoming part of the O.M.C.O.R.O. Society; and

WHEREAS, The members of the O.M.C.O.R.O. County Medical Society favor the amalgamation of Kalkaska County and of Gladwin County and the present counties comprising the O.M.C.O.R.O. Medical Society; therefore be it

RESOLVED, That the O.M.C.O.R.O. County Medical Society members, together with the physician members of Kalkaska and of Gladwin Counties, respectfully, petition the House of Delegates of the Michigan State Medical Society to amalgamate Kalkaska and Gladwin Counties with the O.M.C.O.R.O. group (Otsego, Montmorency, Crawford, Oscoda, Roscommon, and Ogemaw), and further that the name of the O.M.C.O.R.O. County Medical Society be changed to "North Central Medical Society," to include Otsego, Montmorency, Kalkaska, Crawford, Oscoda, Roscommon, Ogemaw, and Gladwin counties.

C. G. CLIPPERT, M.D.,
Secretary, O.M.C.O.R.O. Medical Society.

There is just a slight modification. The name suggested by the O.M.C.O.R.O. Society for the new society was North Central Medical Society, and we changed the wording just a little bit and recommend that the Society be called Medical Society of the North Central Counties.

I move the adoption of the recommendation.

The motion was seconded by Dr. Kasper of Wayne, put to a vote and carried.

XI-6. MATERNAL HEALTH (VI-7)

DR. MYERS: Resolution offered by Dr. Ekelund, with reference to maternal health.

WHEREAS, public health agencies, supported by taxpayers, exist to provide "Preventive Medicine" to large portions of our population; and,

WHEREAS, Birth control, which makes family planning and child spacing possible, can lower infant and maternal mortality and morbidity, decrease the number of abortions, aid in the prevention of congenital diseases, and promote a higher standard of health for the family and community, be it

RESOLVED, That the Michigan Medical Society urges the inclusion of birth control service in national, state and local health and welfare programs and endorses efforts directed toward this objective.

Respectfully submitted,
CLIFFORD T. EKELUND, M.D.,
Delegate,
Oakland County Medical Society.

We recommend to the House of Delegates that this resolution be not adopted at this time because of the highly controversial nature of the subject.

I move the adoption of the recommendation of the Committee.

The motion was seconded by Dr. Ekelund.

R. S. BREAKEY, M.D. (Ingham): Since this has already been endorsed by the Section on Gynecology and Obstetrics of the American Medical Association, since it has been endorsed in full by other national medical societies, I merely rise to ask a question—Are we moral cowards or not?

R. L. NOVY, M.D. (Wayne): We don't have to follow them.

DR. BREAKEY: No, but we do have patients coming to us, seeking help and advice, and there is the question of three million abortions a year, with an instance in one of our local hospitals of 267 admissions in one year with puerperal septicemia with five deaths. That is something that should conjure the wisdom of this body.

I was not on that committee. I was very pleased to hear the doctor present that resolution. I am not opposing the wisdom of Dr. Myers' committee, and I greatly respect him, but I hope these remarks go on the minutes and that the matter may be considered next year by this House.

THE SPEAKER: Any more remarks?

If not, all in favor say "aye"; opposed. The motion is carried.

XI-6. BEAUMONT BRIDGE (VI-8)

DR. MYERS: We recommend the adoption of the resolution naming the new bridge connecting Mackinac City with St. Ignace after Dr. Beaumont.

The resolution is as follows:

WHEREAS, Plans are in progress for the construction of a bridge from Mackinac City to St. Ignace, connecting the two beautiful peninsulas which constitute the State of Michigan, and

WHEREAS, The area in the vicinity of this great public project is sanctified by the research work and scientific contribution of an Army doctor, William Beaumont, Doctor of Medicine, who, in 1833 at Fort Mackinac, with keen scientific insight and true medical interest, made the first publication of physiology of digestion. This work, done under tremendous difficulties, was the most important on this subject to that date and laid much of the foundation for future studies. His studies were begun at an isolated military post in the wilderness of Northern Michigan and completed only by following up his patient and bringing him nearly two thousand miles to Plattsburg, New York. This is one of the great dramatic episodes in the history of medicine, and

WHEREAS, The contributions of Doctor Beaumont to the science of medicine have saved untold lives and relieved the distress and pain of thousands of our fellow beings, therefore, be it

RESOLVED, That the proper authorities be petitioned by the Michigan State Medical Society to christen this bridge structure in honor of William Beaumont, M.D., as a method of publicly recognizing this great physician for his contribution to the relief of human suffering.

I move the adoption of the recommendation.

The motion was seconded by Dr. Breakey, put to a vote and carried.

DR. MYERS: I move the adoption of the report as a whole.

The motion was seconded by Dr. Gruber of Wayne, put to a vote and carried.

HENRY A. LUCE, M.D., (Wayne): Mr. Speaker, at this point, I should like to move the suspension of the regular order of business to return for a few moments to New Business.

The motion was seconded by Dr. Gruber, put to a vote and carried.

THE SPEAKER: We are now under the order of New Business.

X-6. PRESENTATION OF NEW GAVEL (VI-2)

DR. LUCE: Mr. Speaker, in view of the adoption of the resolution and the favorable action on it, it is no more than proper and correct at this time to carry out that portion of the designated program.

Mr. Speaker, before presenting this gavel, let me congratulate you on being the first speaker to have your name inscribed on this silver plate. As this Speaker just said, almost sacred and hallowed memories are about this former gavel that was used.

To those who are not already familiar with its history, it was presented to the Society by Dr. Hornbach at the Marquette Meeting and is solid copper.

Returning to the topic of the new gavel, in 1825, Dr. William Beaumont, then a young surgeon in the

United States Army, located on Mackinac Island, began his studies of the digestion, which he pursued with great labor and skill for the benefit of mankind. It was by the greatest of good fortune that such a rare condition as an accidental gastric fistula fell into the hands of so remarkable a man as Dr. Beaumont. His famous publication appeared in 1833. Beaumont's work was the most important on the physiology of gastric digestion before the time of Pavlov, and was done under tremendous difficulties. His studies were begun at an isolated military post in the wilderness of North Michigan, and completed only by following his patient and bringing him nearly two thousand miles to Plattsburg, New York. This is one of the great, dramatic episodes in the history of medicine.

The old oak lumber used in making this gavel and sounding board was secured for us by Carl S. Cook, M.D., who lives on Mackinac Island. This tree no doubt was growing on Mackinac Island at the time Beaumont started his great work there.

The gavel and sounding board and case were made by a Detroit surgeon, who does expert cabinet work, and who modestly declines to have his name mentioned in this connection. It is a most remarkable thing that a Detroit surgeon does not like to brag about his carving. (*Laughter*)

This gavel is not made in elaborate, ornamental form, nor is it engraved or carved in any way, but is well made, of sound oak. Although its intrinsic value is not high, this gavel has a historic and sentimental value, which will increase with passing years, as it is used by a succession of speakers.

This gavel is a symbol of democracy. In the idiom of 1940, it is a device to implement democratic government in this Society. The Wayne Delegation presents it, with the sincere hope that it will never need to be used to quell dissension in this honorable body, with the hope that it will long and successfully uphold the Speaker's authority and facilitate performance of the important work for which the Michigan State Medical Society has become known throughout this country.

With this, Mr. Speaker, may I be permitted to sound the first note on the gavel. (Tapping the gavel) (*Applause*)

THE SPEAKER: A silver plate on the box reads as follows:

"Speaker's Gavel, presented to the House of Delegates, Michigan State Medical Society, by the Wayne County Delegation at the meeting in Detroit, September 24, 1940."

Dr. Luce, as Speaker, I feel very proud that I am allowed to accept this gavel in the name of the House of Delegates of the Michigan Medical Society. (*Applause*)

R. L. NOVY, M.D. (Wayne): Mr. Speaker, May I ask that when Dr. Luce's speech is published, it be torn out of THE JOURNAL and pasted on the inside of the box, so that when this box in turn goes among the archives, those who are there can read it. (*Applause*)

THE SPEAKER: At this time, we also take pleasure, without any permission from the House, in turning over the old gavel to the Wayne County Medical Society. I understand it is to have an honored place in the home of the Wayne County Society. Will the President of the Wayne County Medical Society come and accept this gavel?

ALLAN MCDONALD, M.D. (Wayne): I would be very proud to do so.

The old gavel was presented to Dr. McDonald.

THE SPEAKER: This completes the order of business for the second session. The Speaker will now declare a recess for ten minutes, after which the evening session, or the third session, will start.

The meeting recessed at nine-twenty o'clock.

The Third Session of the House of Delegates convened at nine-thirty o'clock, The Speaker presiding.

THE SPEAKER: I will now declare the Third Session of the House of Delegates in order.

May we have the supplementary report of the Committee on Credentials?

DR. FOSS: There are ninety delegates present at the current session, which constitutes a quorum.

THE SPEAKER: If there is no objection from the House, the Report of the Committee on Credentials will constitute a roll call.

The first order of business is the Supplementary Report of the Council.

HENRY R. CARSTENS, M.D.: Mr. Speaker, the Council has nothing further to report.

THE SPEAKER: The Reference Committee on Reports of Standing Committees.

XI-3. ON STANDING COMMITTEE REPORTS (Syphilis Control, VIII-15 and Genito-Infectious Disease Program, VI-1)

E. D. SPALDING, M.D.: Taking up, first, the resolution on the genito-infectious disease program, introduced in the House of Delegates in its revised form this afternoon, which was again taken up by the Committee, I will read the resolution as a whole, as it is now amended:

WHEREAS, An expanded program for the control of the genito-infectious diseases throughout the states has been made possible by federal grants-in-aid to states to be used specifically for this purpose; and

WHEREAS, Upon State Health Departments has been placed the responsibility for the judicious and wise expenditures of such funds; and

WHEREAS, The organized medical profession of this state has likewise a responsibility in this particular problem, as it has in all other health problems affecting the people; and

WHEREAS, Because of the magnitude and scope of any statewide program endeavoring to control genito-infectious diseases, the House of Delegates of the Michigan State Medical Society recognizes the need for the fullest coöperation, aid and counsel from the practicing doctor of medicine and

WHEREAS, The proper control of these diseases depends upon adequate, continued treatment of the individual and the detection and treatment of infected contacts and

WHEREAS, The treatment of the infected individual is the province of the practicing doctor of medicine; and

WHEREAS, The modern technics employed in the treatment of genito-infectious disease requires a familiarity with such technics as well as a knowledge of the diseases themselves; therefore, be it

RESOLVED, That the House of Delegates of the Michigan State Medical Society endorse in their entirety the principles submitted, and further be it

RESOLVED, That the Michigan State Medical Society coöperate with the various agencies for the promotion of public health, both state and local, in the formulation of such programs as would appear to be advisable for the public good and the interest of sound medical practice through its delegated Committee on Syphilis Control, and further be it

RESOLVED, That it is the sense of this House of Delegates of the Michigan State Medical Society that the component County Medical Societies coöperate to the best of their individual facilities in an effort to insure the quality of service to be rendered in genito-infectious disease control programs, and further be it

RESOLVED, That it is the sense of this House that because of the potential danger of intravenous therapy, such treatment should be administered only by Doctors of Medicine, and that treatment of these infectious diseases by other than those qualified be condemned both from the viewpoint of the individual as well as the public health resulting hazard, and further be it

RESOLVED, That this House endorses effort on the part of the Syphilis Control Committee and the Legislative Committee or other such agencies as may be so delegated to eliminate the pernicious practices of those not qualified to treat these infectious diseases.

This resolution in its present revised form has been approved by the Committee, and I move its adoption.

DR. NOVY: I second the motion.

THE SPEAKER: It has been moved and supported to adopt this report. Are there any remarks?

If not, all in favor say "aye"; those opposed. It is carried.

XI-3. ON STANDING COMMITTEE REPORTS (Committee on Distribution of Medical Care, VIII-4)

DR. SPALDING: Supplementing the recommendation of the Reference Committee on the Reports of Standing Committees on the Report of the Committee on Distribution of Medical Care, which was given this afternoon, the Committee offers the following supplementary report:

Arising out of the discussion of the Report of the Committee on Distribution of Medical Care, the following points seem clear:

1. It is recognized that not all qualified physicians have been certified by a Specialty Board.
2. It is also recognized that the opportunities for formal academic preparation for certification by these Boards are very limited, and further, that the value of experience has not always been given adequate consideration.

To correct the above-mentioned faults in the existing situation, the Reference Committee offers the following resolution:

WHEREAS, now as never before, this country needs the concerted effort and wholehearted coöperation of American physicians, and

WHEREAS, Certification by specialty boards is being arbitrarily taken by government agencies as an imperative requirement for performance of many medical services, paid for by government funds, and

WHEREAS, Such work is increasing in amount and importance, and

WHEREAS, This policy works a hardship on many qualified physicians by excluding them from such work; therefore be it

RESOLVED, That the Michigan Delegates to the American Medical Association be instructed to propose to the House of Delegates of the A.M.A. that a committee of that House be created to confer with specialty boards, national organizations of specialists, and government agencies to effect some equitable adjustment of these difficulties and remove this potential source of dissension in the ranks of American Medicine.

Respectfully submitted,
EDWARD D. SPALDING, M.D., Chairman,
Reference Committee on Reports
of Standing Committees.

I move the adoption of this resolution.

The motion was seconded by Dr. Brasie of Genesee.

S. W. INSLEY, M.D. (Wayne): There has already been a modern movement in this country toward the organization of the general practitioners' groups. The surface of the possibility of that has barely been scratched. Dr. Bruce this afternoon mentioned an enlargement of the postgraduate training of these men. I wonder whether it might not be appropriate at this time to include, as an amendment to this proposition, that carefully organized groups of general practitioners' sections be also recognized in the solving of this problem.

I might add, further, that in Wayne County there is already a Section on General Practice set up.

THE SPEAKER: You have heard Dr. Insley's amendment. Is it supported?

G. L. MCCLELLAN, M.D. (Wayne): I support it.

THE SPEAKER: We will now vote on the amendment.

THE SPEAKER: All those in favor signify by standing up. Those who are not in favor will please stand. The amendment is lost.

We will now vote on the original motion. All in favor say "aye"; opposed. It is carried.

DR. SPALDING: Mr. Speaker, having voted on the resolution, I now move the acceptance of the Report of the Committee on the Distribution of Medical Care, with the modifications of this report as implied by the foregoing.

The motion was seconded and carried.

DR. SPALDING: I will now move the acceptance of the Reports of the Standing Committees as a whole.

The motion was seconded by Dr. Oakes, put to a vote and carried.

THE SPEAKER: Dr. Oakes, do you have a supplementary report?

XI-1. ON OFFICERS' REPORTS (President's Address, II)

E. A. OAKES, M.D.: In the mêlée this morning we missed one rather important recommendation by Dr. Corbus. I am going to include it here.

Your Committee further wishes to recommend for your adoption the suggestion of your President, Dr. Corbus, that a committee on Prelicensure Education be named with additional representation from the State Board of Registration in Medicine and the Michigan Hospital Association, the objective of which will be to develop a coöperative plan for interne training.

I move the adoption of this report.

The motion was seconded by Dr. Ledwidge of Wayne.

BURTON R. CORBUS, M.D.: May I speak on that?

THE SPEAKER: Yes, you may, Dr. Corbus.

DR. CORBUS: This was a conference committee which was formed last year of the two schools, and later added the Registration Board and the hospitals. My thought was that we would carry that committee in our JOURNAL and arrange to have it operate as the Joint Committee on Health Education is operated, with representatives from this Society to that committee.

THE SPEAKER: You have heard the supplementary report of the Reference Committee on Officers' Reports. Is there any further discussion?

All in favor will say "aye"; opposed the same. It is carried.

XI-6. ON RESOLUTIONS (Special Memberships, VI-3)

DR. MYERS: Your Committee on Resolutions wishes to report on the following resolution:

WHEREAS, The late Stuart Pritchard, M.D., through his work as Director of the W. K. Kellogg Foundation, rendered unusually meritorious service to organized medicine in the field of health education, preventive medicine and postgraduate education, and through his conscientious efforts helped to make the family physician and dentist the focus from which health education shall emanate, therefore, be it

RESOLVED, That in recognition of his many contributions to organized medicine, the late Stuart W. Pritchard, M.D., be elected to Honorary Membership, and that this posthumous award be transmitted to his family.

PAUL ENGLE, M.D., Delegate,
Eaton County,
LUTHER W. DAY, M.D., Delegate,
Hillsdale County.

That is signed by the Committee on Resolutions, and we have recommended the adoption of this resolution.

I move the recommendation be adopted.

The motion was seconded by Dr. Oakes, put to a vote and carried.

XIII. Elections

XIII-1. COUNCILOR SECOND DISTRICT

THE SPEAKER: The next will be the elections.

The first is the election of a Councilor from the Second District. J. E. McIntyre, M.D., is the present incumbent.

T. I. BAUER, M.D. (Ingham): This morning we of the Second District received a communication we were afraid we would receive but hoped we would not:

To the Delegates of the Second Councilor District:

I have not been, and am not now, a candidate to succeed myself to reëlection to The Council. I have served two terms, and that is enough. I am not a third-termite. I wish to thank you all for your loyal friendship and coöperation.

Cordially and sincerely,
J. E. MCINTYRE, M.D.

This came as a shock to us, but we were afraid it was coming. Earl has represented us for ten years, and we have been very proud of the service that he has rendered our district and to the State of Michigan Medical Society.

We were at a loss, until this morning we got an inspiration, so I would like to present as a candidate to the office of Councilor from the Second District, the name of a physician whom this morning the House of Delegates chose to honor, whose unselfish, meritorious service to the Michigan State Medical Society was recognized by the presentation of a special scroll, and who I feel can well represent not only the Second

Councilor District but serve the interest of the Society as a whole.

There are various reasons to support this man for the office of Councilor. The district consists of the counties of Eaton, Hillsdale, Ingham and Jackson, and not in twenty years have they been represented on The Council by a physician from the second-largest community in the district. I feel the Second District will have reason to be proud of his integrity in representing his own district and in safeguarding the welfare of the State of Michigan as a whole.

Therefore, I have the honor to place before the House of Delegates of the Michigan State Medical Society, the name of Philip Riley, M.D. This was unanimous.

LUTHER W. DAY, M.D. (Hillsdale): Mr. Speaker, I certainly support that nomination.

THE SPEAKER: Dr. Philip Riley has been nominated, and his nomination is supported. Are there any other nominations?

DR. BREAKEY (Ingham): Mr. Speaker, I move the nominations be closed.

The motion was seconded.

THE SPEAKER: It is moved and supported that the nominations be closed. All in favor of Dr. Riley as Councilor from the Second District will please say "aye"; those opposed. The motion is carried.

XIII-2. COUNCILOR THIRD DISTRICT

The next order of business is the election of a Councilor from the Third District. Wilfrid Haughey, M.D., of Battle Creek is the incumbent.

HARVEY HANSEN, M.D. (Calhoun): I would like to place in nomniation the name of Wilfrid Haughey, M.D., to succeed himself.

R. L. WADE, M.D. (Branch): I second the nomination.

C. K. VALADE, M.D. (Wayne): I move that the nominations be closed.

The motion was seconded by D. J. O'Brien, M.D., of Lapeer.

THE SPEAKER: All in favor of Dr. Haughey will say "aye"; opposed the same. The motion is carried.

THE SPEAKER: Will the Secretary cast the unanimous ballot?

It has already been cast in both cases.

XIII-3. COUNCILOR FIFTEENTH DISTRICT

Fifteenth District—Otto O. Beck, M.D., of Birmingham, incumbent.

C. T. EKELUND, M.D. (Oakland): A caucus of the delegates of the Fifteenth District reveals that they are unanimously in favor of the election of Otto Beck, M.D., to succeed himself. Dr. Beck has not filled out a complete term. We now want him to be elected to his own right. I nominate Dr. Beck.

P. L. LEDWIDGE, M.D. (Wayne): I second the nomination.

R. M. McKEAN, M.D. (Wayne): Mr. Speaker, I move the nominations be closed, and the unanimous ballot be cast by the Secretary for the election of Dr. Beck.

The motion was seconded and carried, and the ballot was cast.

XIII-4. COUNCILOR SIXTEENTH DISTRICT

THE SPEAKER: The Sixteenth District.

ALLAN McDONALD, M.D. (Wayne): It gives me great pleasure to place in nomination the name of Andrew S. Brunk, M.D.

DR. VALADE: I second the nomination.

R. M. McKEAN, M.D. (Wayne): I move that the nominations be closed and the Secretary cast the unanimous ballot.

The motion was seconded and carried, and the unanimous ballot was cast.

THE SPEAKER: I declare A. S. Brunk, M.D., Councilor of the Sixteenth District.

XIII-5. DELEGATES TO A.M.A.

The next order of business will be the election of delegates to the American Medical Association. Nominations are now in order.

L. J. HIRSCHMAN, M.D. (Wayne): Mr. Speaker, in our representation in the House of Delegates of the American Medical Association, Michigan has been very, very much in the fore, and the reason for that is this: that we are doing as other state societies have been doing for many years; when we have a good man in office, we keep sending him back, unless for some reason of health, disinclination, or mischievous conduct in office he should not be sent back.

I would like to place in nomination a man who has shed great luster on our state, and I hope we can keep sending him back just as long as he wants to go, Henry A. Luce, M.D. (*Applause*).

C. K. VALADE, M.D. (Wayne): I second the nomination.

C. F. VALE, M.D. (Wayne): I move the nominations be closed and the Secretary be instructed to cast the unanimous vote.

THE SPEAKER: It is moved that the nominations be closed and the Secretary be instructed to cast the unanimous vote for Dr. Luce. All in favor say "aye"; contrary the same sign. It is carried.

Are there any further nominations?

RALPH H. PINO, M.D. (Wayne): Mr. Speaker, it seems as though there are very few hospital superintendents or hospital directors who take a definite interest in the practice of medicine. They do take an interest in the progress of the hospital and its affairs, but to be the superintendent of a hospital and at the same time to take a very definite interest in the practice of medicine in the county society and in the State Society is something that is just a little bit rare.

To have a superintendent of a hospital who is interested in the subject of medicine and who attends the meetings of the staff and discusses the medical problems and knows the medical problems is not so common, among hospital superintendents. Hospital superintendents who are politically inclined, politically inclined for the medical profession as well as for the hospital affairs, are not entirely usual.

Now, we have such a man in Wayne County, and we are proud of him. He has done a good job for us. He has been the superintendent of three of our largest hospitals here over a period of twenty-five years. I think that he is the superintendent of the largest hospital in the United States at this time.

We would like to have T. K. Gruber, M.D., continue as a delegate to the American Medical Association from Wayne County. We believe the rest of you would, too. I would like to place his name in nomination.

THE SPEAKER: Dr. Gruber has been nominated.

DR. McKEAN: I would like to second the nomination of Dr. Gruber.

DR. VALADE: I move that the nominations be closed and the Secretary be instructed to cast the unanimous ballot.

The motion was seconded by Dr. McKean, put to a vote and carried.

THE SPEAKER: We are now waiting for further nominations.

J. M. ROBB, M.D. (Wayne): Mr. Speaker and Members of the House of Delegates: This is the first time I have appeared today to talk, contrary to my usual position. I deem it a great pleasure again to come to the fore for my good friend, Frank Reeder. He is a junior, not a senior like Dr. Luce, in the House of Delegates, but, believe me, he works. I have been interested in appearing down there a couple of times, and I have known that Dr. Reeder has been around. He has the unusual quality, too, of being able to handle a lot of political situations, and that, I am going to tell you, is the most important part of the whole pro-

gram. All of the things in the world are not accomplished by sitting by the fireside. One has, once in a while, to drift into other corners and pursue the things that one wants.

It is with very great pleasure that I present again the name of Frank E. Reeder, M.D., as Delegate to the American Medical Association.

D. R. Brasie, M.D. (Genesee): We in Genesee heartily endorse Dr. Reeder's nomination, and know from upstate we could have no better representative. I second the nomination.

Dr. Valade: I move that the nominations be closed, and the Secretary cast the unanimous vote.

The motion was seconded, put to a vote and carried.

A. E. Catherwood, M.D., (Wayne): Mr. Speaker, in view of what has been said about the continuity of service by delegates from the State of Michigan to the A.M.A., I would like again to nominate Claude Keyport, M.D., of Grayling. He has been a representative of this State for eight years, and has done a very good job. I think he deserves to be sent back.

The Speaker: Dr. Keyport has been nominated.

Dr. Oakes: I move that the nominations be closed and the Secretary cast the unanimous ballot.

The motion was seconded by Dr. Valade, put to a vote and carried.

XIII-6. ALTERNATE DELEGATES TO A.M.A.

The Speaker: The next order of business is the election of Alternate Delegates to the American Medical Association.

George J. Curry, M.D. (Genesee): I would like to place the name of Dr. Robb in nomination.

J. M. Robb, M.D. (Wayne): Mr. Speaker, I appreciate very much the fact that my name has been presented, but I have received considerable commendation at the hands of the profession, and I would much rather see someone else be an alternate. I, therefore, ask that my name be withdrawn.

Dr. Gruber: Mr. Speaker, I nominate one of the incumbents, R. H. Denham, M.D., of Grand Rapids.

The Speaker: R. H. Denham, M.D., has been nominated. Any further nominations?

The terms expiring are those of R. H. Denham, M.D., Carl F. Snapp, M.D., and C. S. Gorsline, M.D.

A. V. Wenger, M.D. (Kent): I nominate Carl F. Snapp, M.D.

The Speaker: Dr. Carl Snapp has been nominated. We need one more.

R. L. Wade, M.D. (Branch): I nominate Dr. Gorsline.

Dr. Valade: Mr. Speaker, may I move that the nominations be closed and the Secretary cast the unanimous ballot?

The Speaker: It has been moved that the nominations be closed.

No, it is impossible in this, Doctor. If you will read on page 101 of the Handbook, it states that the alternate delegates have relative seniority according to the respective numbers of votes received by them. This question comes up every year.

Dr. Hirschman (Wayne): Mr. Speaker, I move that, if there are no further nominations, the seniority be decided by lottery. We can suspend the rules and have these gentlemen determine their seniority by lot.

The motion was supported by Dr. Robb of Wayne.

The Speaker: It has been moved and supported that the rules be suspended and the determination of seniority of Alternate Delegates be made by lot.

The motion was put to a vote and carried.

The Speaker: Do the nominees wish to come up, or is it all right if the Speaker will appoint Dr. Kniskern to draw these? Dr. Kniskern, will you please draw?

Lots were drawn and the seniority, according to the drawing, is as follows: Dr. Snapp, Dr. Gorsline, and Dr. Denham.

The Speaker: The next order of business is the election of a President-Elect.

XIII-7. PRESIDENT-ELECT

Dr. Brasie (Genesee): Mr. Speaker, it is a very great personal privilege to be permitted to present to this House the name of a gentleman eminently fitted by his experience and his service to the State Society, a distinguished son of an eminent father, Henry R. Carstens, M.D. (*Applause*)

The Speaner: Dr. Carstens has been nominated.

Dr. Ledwidge: I move the nominations be closed and the Secretary instructed to cast the unanimous ballot.

The motion was put to a vote and carried.

The Speaker: Dr. Ellet, please escort Dr. Carstens to the platform. (*Applause*)

Dr. Carstens was escorted to the platform.

The audience rose and applauded.

Henry R. Carstens, M.D.: Mr. Speaker and Members: In view of the fact that you have heard me talk a great deal, I feel that in this case all I can say is to express my heartfelt thanks. It has been my privilege to serve as a member of the House of Delegates for a good many years, as your Vice Speaker, and as your Speaker, and on the Council for the past ten years. At least, I should have had the opportunity of becoming acquainted with some of the duties. I hope I shall not be remiss in filling the office to which you have elected me. I appreciate the honor. Thank you. (*Applause*)

Vice Speaker O'Meara took the chair.

The Vice Speaker: Gentlemen, the next order of business is the election of a Speaker for the House of Delegates.

XIII-8. SPEAKER OF THE HOUSE OF DELEGATES

C. F. Snapp, M.D. (Kent): Mr. Vice Speaker, it is customary in this august assembly that we give a man a second chance to make good. I think we ought to have O. D. Stryker, M.D., presiding over this assemblage next year.

I nominate Dr. Stryker for Speaker of the House of Delegates.

Dr. Ellet (Berrien): Mr. Speaker, may I have the privilege of supporting that nomination?

Dr. Vale (Wayne): I move the nominations be closed and the Secretary instructed to cast the unanimous ballot for the election of Dr. Stryker.

The motion was seconded, put to a vote and carried.

Dr. Stryker resumed the chair.

The Speaker: Thank you, gentlemen.

The next order of business will be the election of a Vice Speaker of the House of Delegates.

XIII-9. VICE SPEAKER OF THE HOUSE OF DELEGATES

Dr. Novy (Wayne): Mr. Speaker, it gives me great pleasure at this time to put in nomination a man who I hope, at the next session of this body, will be Vice Speaker, that I may also have occasion to speak to him as I have this time—Dr. Spalding.

The Speaker: Dr. Spalding has been nominated as Vice Speaker. Are there any other nominations?

Dr. Valade: I move the nominations be closed.

Dr. Ellet (Berrien): Mr. Speaker, I would like to have the privilege of offering the name of the present incumbent as Vice Speaker, a man who has done his work well. I think he should be given consideration. I know we all love him.

I would like to nominate James J. O'Meara, M.D.

The Speaker: Dr. O'Meara has been nominated. Any further nominations?

D. J. O'Brien, M.D. (Lapeer): I second the nomination of Dr. O'Meara.

The Speaker: Are there any further nominations?

Dr. Ledwidge (Wayne): I move that the nominations be closed.

The motion was seconded and carried.

The Speaker: I will appoint as tellers, Drs. Dutchess, A. V. Wenger, and D'Alcorn.

The ballots were distributed and the vote cast and the votes tallied.

The Speaker: Dr. O'Meara has been elected Vice Speaker. (*Applause*)

XIII-10. COUNCILOR FIRST DISTRICT

Dr. Foster has the resignation of Henry R. Carstens, M.D., as Councilor of the First District, which was given him this morning. Nominations are now in order for Councilor for the First District.

Dr. Gruber (Wayne): Mr. Speaker, I move we revert to the order of business of electing the Councilor for the First District.

The motion was seconded by Dr. Pino of Wayne, put to a vote and carried.

The Speaker: Nominations are now in order for Councilor for the First District.

G. L. McClellan, M.D., (Wayne): Mr. Speaker, I deem it a privilege to nominate a man from Detroit, who has served the profession of Michigan by serving the Wayne County Medical Society as Secretary, as President, as a member of the Board of Trustees. He has given generously of his time and very efficiently of his ability. We who have sat around the table with him know he has the welfare of the profession at heart. I believe he will be a credit to The Council of the Michigan State Medical Society.

I would like to nominate C. E. Umphrey, M.D.

The Speaker: C. E. Umphrey has been nominated.

E. D. Spaulding, M.D. (Wayne): Mr. Chairman, I second the nomination of Dr. Umphrey.

J. A. Kasper, M.D. (Wayne): I move the nominations be closed and that the Secretary cast the unanimous ballot.

The motion was seconded, put to vote and carried.

The Speaker: A motion is now in order to revert to the usual order of business.

The motion was seconded by Dr. Vale of Wayne, put to a vote and carried.

The Speaker: I would like to announce that after the close of this meeting, the Michigan State Medical Society invites the House of Delegates to the "After Glow." All delegates, officers, and members of the Detroit Committee on Arrangements are cordially invited to attend. I wish to thank all the delegates for their courtesy in making this meeting what I consider to be a great success.

Dr. Loupee: I wsh to move that the House of Delegates now formally acknowledge the service of all individuals and all groups who have acted to make this meeting a success. I include the radio, the newspapers, members of the Wayne County Society. I move that the credit of the success be attributed to them formally by this House of Delegates.

The motion was seconded by Dr. Snapp and carried.

XIV. Adjournment

Upon motion regularly made and seconded, the House of Delegates adjourned at ten thirty-five o'clock.

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YOU AND YOUR BUSINESS

TESTIMONY BY HEALERS OF ANOTHER SCHOOL

Decisions have been handed down in several cases relative to osteopaths, chiropractors, and other non-medical practitioners giving expert testimony in malpractice cases. In the case of Forthofer v. Arnold (Ohio), 21 N.E. (2d) 869, the court relied for its decision on 21 R.C.L. 383, section 28, which states:

> In an action for malpractice a physician or surgeon is entitled to have his treatment of his patient tested by the rules and principles of the school of medicine to which he belongs, and not by those of some other school, because a person professing to follow one system or school of medicine cannot be expected by his employer to practice any other, and if he performs the treatment with ordinary skill and care in accordance with his system, he is not answerable for bad results.

This general rule was also adhered to in the case of Wemmett v. Mount, (Ore.) 292 P. 93, and Ness v. Yoemans (N.D.) 234 N.W. 75.

DO YOU KNOW HIS NAME?

Do you know the name of your State Senator? The name(s) of your State Representative(s)?

Despite the fact that the State Legislature has the power to alter the form and scope of medical practice, few doctors of medicine bother to communicate their views to their representatives at Lansing, according to the legislators themselves. A surprising indifference to the fate of their profession is shown in this apathetic attitude. Every two years, when the Legislature meets, a number of occasions arise when an unmistakable expression of professional opinion would have a decisive effect on the course of legislation affecting Medicine.

Get acquainted with your legislative representatives, and present to them the views of organized medicine. The voice of the individual is more effective than that of organizations because ballots of friends at home count most heavily with the politicians.

When a group of citizens fails to make its wishes known, legislators cannot be blamed if they obey the mandate of more articulate, if less unselfish, voters.

TWO DIFFERENT MATTERS

The medical profession's fight against state-managed medicine, on the one hand, and its request for recompense for services furnished to those on Welfare, on the other hand, may at first blush seem incongruous and inconsistent. However, the two matters refer to entirely different situations.

First: governmental medicine (so-called state-managed or socialized medicine) has to do with making physicians employes of the government, on salary.

Second: physicians who are in the private practice of medicine and who render service, for a fee, to those on Welfare, are acting as free agents, utilizing and maintaining the family-physician-patient relationship, and simply requesting recompense for a service rendered to a person who is part of a group which cannot pay its own way, and must look for help to some other agency (in this case, to government). The physician is not an employe of government or the Welfare Commission or of any agency of government; he remains an independent contractor with his rights as a private practitioner of medicine unimpaired and inviolate.

WHEN YOU LEASE OFFICE SPACE

When you sign a lease for rental of office space, it is quite a common practice for the real estate agency to include a clause in the fine-print section which states that you assume all liability that would normally accrue to the owner of the building, as for example injury to a patient who might be hit by a piece of broken window glass in your office. The average public liability policy will not cover such assumed liability unless it is specifically endorsed for that purpose. All liability policies contain a clause reading somewhat as follows: "The insurance under this policy does not apply to liability assumed by the insured under any contract or agreement." If this kind of loss is of concern to you, it would be well to examine carefully both your lease agreement and your public liability insurance policy, according to a bulletin from the Cincinnati Academy of Medicine.

COMFORT - The Yardstick by which your Cardiac Patient Measures his Progress

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

POLIO HITS 497 CASES

Continuing the rapid rise of the last two weeks of August, poliomyelitis cases in September went to the year's peak and made September the second highest month in reported cases that the state has known.

Provisional figures show 497 cases, exceeded only by the September total of 577 cases in the record year of 1931. The month's peak of 154 cases reported for the second week was also higher than any other week except the third week in September, 1931, when 170 cases were reported.

September reports put the 1940 total more than 100 cases ahead of last year at this time, just 60 cases short of the 904 reported in 1939 for the year. That total was second only to the 1931 record of 1,137 cases.

PEDIATRIC INTERNESHIPS

Planned to meet needs of physicians in rural practice, a series of 30-day postgraduate interneships in pediatrics has been arranged at Children's Hospital of Michigan, at Detroit. Coöperating are the Michigan Department of Health, the Department of Pediatrics at Wayne University Medical School, and the hospital.

Applications for appointments during the coming year are now being made to Dr. Lillian R. Smith, Director of the Bureau of Maternal and Child Health, Michigan Department of Health. The endorsement of local medical societies is required for appointments. There is no cost to the physician except for transportation. Appointees will live at the hospital. Only one man at a time can be accepted.

The interneships are possibly unique in this country, for the physician appointed is not expected merely to observe, but actually to practice. He will work in the out-patient department, clinics and wards. Every attempt will be made to teach technics in pediatrics which can be put in use in country and small town practice. Dr. James L. Wilson, Assistant Medical Director, Children's Hospital of Michigan, Associate Professor of Pediatrics, Wayne University Medical School, will be in charge of the instruction.

TYPHOID

Typhoid fever cases reported from June through September have held to low figures, 20 or less per month. Last year, scattered cases in August sent that month's total to 42. In October, an outbreak at the Ypsilanti State Hospital was largely responsible for a reporting of 42 cases. Cases this year are: June, 8; July, 18; August, 16; September, 20.

RECORD LOW PNEUMONIA MONTHS

In the five-month period from last December through April which usually accounts for two-thirds of the annual lobar pneumonia mortality, deaths dropped to record low figures in three successive months and approached record lows in the other two.

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is indicated in the treatment of

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★ Trichomonas Vaginalis Vaginitis

★ Vaginal Moniliasis

★ Bartholinitis and Skeneitis (due to Trichomonas Vaginalis)

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Figures for this period and averages for the preceding ten-year period follow:

LOBAR PNEUMONIA DEATHS

	1939-40	Ten-Year Average
December	159	205
January	173	249
February	142	226
March	127	254
April	107	219

Serum and drug therapy is at least in part responsible for the reduction of pneumonia mortality. The figures are the first decisive showing from Michigan statistics indicating the life saving powers of antipneumococcic serum and drugs of the sulfonamide group, which lately have been widely used in the treatment of the pneumonias.

The record low months were those of February, March and April, the April total being 30 per cent under the previous ten-year low.

PERSONNEL CHANGES

Dr. Buell H. Van Leuven, who in 25 years of private practice at Petoskey served five terms as mayor, has been named acting director of the Menominee County Health Department, effective October 1. He succeeds Dr. C. C. Corkill who is on leave of absence for a year at Johns Hopkins University. Dr. Van Leuven served for 16 years as a councilor of the MSMS and a year as president of the Northern Michigan Medical Society. He left his practice last year to take public health studies at the University of Michigan.

Dr. Lorin E. Kerr has been named acting director of the Iron County Health Department, succeeding Dr. T. E. Camper, who is on leave of absence for a year at the University of Michigan. The appointment became effective October 1. Dr. Ker has been an assistant to Dr. C. D. Barrett, director of the Ingham County Health Department and MDH training center.

Dr. Albert C. Edwards, supervisor of local health service for the Wisconsin State Board of Health, will go to White Cloud to become the director of District Health Department No. 5 (Lake, Newaygo and Oceana counties) starting October 15. He succeeds Dr. Richard Sears, who in September was appointed director of the Muskegon County Health Department.

IN MEMORIAM

John C. Smith, of Jackson Michigan, was born April 17, 1882 at Guide Rock, Nebraska, and was graduated from the University of Michigan in 1907. Doctor Smith entered general practice in Jackson. In 1913, he moved to Florida where he practiced for one year. Thereafter he entered Eye, Ear, Nose, and Throat postgraduate clinics in New York, Chicago and Vienna. He returned to Jackson in 1915, where he practiced until the time of his death, September 3, 1940. Dr. Smith was on the staff of both Foote and Mercy Hospitals in Jackson.

H. Wellington Yates, Past President of the Wayne County Medical Society, Detroit, was born February 24, 1867 near Galt, Ontario and was graduated from the Detroit College of Medicine and the University of Vienna. For years he was head of the department of gynecology and obstetrics at the Detroit College of Medicine and at the time of his death was a member of the staff of Women's Hospital. He held an honorary fellowship in the American Association of Obstetricians, Gynecologists and Abdominal Surgeons. Dr. Yates died in Harper Hospital on October 13, 1940.

For Non-Professional Visiting Hours

When the visitors are friends, introduce the Scotch that wins a warm reception—mellow Johnnie Walker.

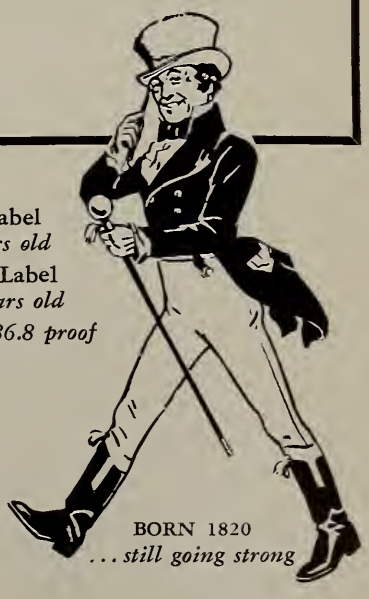
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✶ COUNTY AND PERSONAL ACTIVITIES ✶

J. Milton Robb, M.D., Detroit, was elected a vice president of the National Academy of Otolaryngology at its meeting in Cleveland the week of October 7, 1940.

* * *

Wilfrid Haughey, M.D., Councilor of the 2nd District, Battle Creek, spoke to the Woman's Auxiliary of the Jackson County Medical Society on Tuesday, October 15. His subject was "Opportunities for the Woman's Auxiliary."

* * *

Burton R. Corbus, M.D., Grand Rapids, addressed the American School Health Association at its meeting of October 10 in Detroit in the panel "Evaluation of School Health Practices." Doctor Corbus's special topic was "School Health Practices as Related to the Private Practitioner."

* * *

Frank Van Schoick, M.D., Jackson, Chairman of the Child Welfare Committee of the MSMS, will represent the State Society at the joint meeting of the Bureau of Maternal and Child Health and the Bureau of Public Health Nursing of the State Health Department to be held in Lansing, November 28 and 29.

* * *

R. C. Huston, president of the Michigan State Board of Examiners in the Basic Sciences, reports that on June 28 and 29, 1940, the basic science examination was given to 76 persons, of which 53 passed and 23 failed. Of the 23 who failed, 16 failed in one subject only.

The next examination to be given by the Basic Science Board will be on February 14 and 15, 1941, to be given concurrently at Ann Arbor, Detroit and East Lansing.

* * *

New County Medical Society.—Pursuant to action of the House of Delegates on September 24, 1940, in Detroit, granting a charter to the Huron County Medical Society, the organizational meeting was held on October 10. The newly elected officers are President, J. Bates Henderson, M.D., Pigeon; Vice President, W. B. Holdship, M.D., Ubly; Secretary-Treasurer, Roy R. Gettel, M.D., Kinde; Chairman, County Medical Preparedness Committee, Willet Herrington, M.D., Bad Axe; Delegate, C. W. Oakes, M.D., Harbor Beach; and Alternate Delegate, C. A. Scheurer, Pigeon .

* * *

The Second Venereal Disease Clinic Day was held on November 7 by the Ingham County Medical Society in Lansing. The subject under discussion was "Gonorrhea." Guest speakers included R. A. Vonderlehr, M.D., Washington, D. C.; Adolph Jacoby, New York City; Percy Pelouse, M.D., Philadelphia; and V. Robers Deakin, M.D., St. Louis, Missouri. A movie was also presented by the Michigan Department of Health. The day was climaxed by a public meeting at which Dr. Vonderlehr spoke on "Present Day Venereal Disease Control." Physicians from all the nearby counties were invited guests.

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The State Bureau of Social Security, which administers aid to dependent children in Michigan, is seeking the coöperation of physicians in the state in furnishing reports as to the physical or mental incapacity of parents of such children.

In order to be eligible for assistance, such children must be deprived of parental support or care by reason of the death, continued absence from the home, or physical or mental incapacity of a parent. In determining whether the parent is so incapacitated, it is necessary to ask for reports from the family physician with respect to the condition of the parent. The State Bureau of Social Security would appreciate it highly if the physicians throughout the state would coöperate in furnishing such reports.

* * *

Joseph Stokes, Jr., M.D., of Philadelphia, one of the guest essayists on the 1940 Diamond Jubilee program of the Michigan State Medical Society, has requested that credit be given to Dr. Geoffrey Rake, Dr. Morris Shaffer, Gerald O'Neil and the Squibb Institute for Medical Research in the résumé of his paper, published in the September JOURNAL, as this résumé was the first mention of the clinical studies of Drs. Rake, Shaffer, O'Neil and the Squibb Institute for Medical Research published in any journal. This correction of the résumé is presented in order that full credit may be given to these physicians and to the Institute.

* * *

The Civil Service Commission announces that enough applications have been received to meet the prospective need for temporary and part-time civilian medical officers in connection with the Army expansion. Receipt of applications closed Monday, October 14.

The Commission calls attention to the fact, however, that there is an urgent need for medical officers and senior and associate medical officers to fill permanent positions in other agencies. Applications will be received until further notice. The positions pay from $3,200 to $4,600 a year. Fourteen specialized branches of medicine are included.

There is also an urgent need to fill junior medical officer positions at $2,000 a year at St. Elizabeths Hospital, Washington, D. C.

Full information and application forms for these examinations may be obtained from the U. S. Civil Service Commission, Washington, D. C.

* * *

Appearances of L. Fernald Foster, M.D., Bay City, Secretary of the Michigan State Medical Society, for the past several months include the following: May 15—Oceana and Newaygo County Medical Societies; May 16—Shiawassee County Medical Society; May 18—St. Vincents Nurses' Graduation, Toledo, Ohio; May 21—Lenawee County Medical Society; May 22—St. Joseph County Medical Society; May 29—Alpena County Medical Society; August 17—American Legion Child Welfare Conference; September 19—Saginaw Kiwanis Club; October 3—Bay City Kiwanis Club.

Doctor Foster is scheduled to appear as guest speaker at the 19th Annual meeting of the Michigan Society for Crippled Children to be held in Kalamazoo, November 15 and 16. He will participate in the symposium on Michigan's Crippled Child Problem.

* * *

Industrial Health and Safety Symposium.—Keeping pace with the increasing importance of Saginaw as an industrial center and to further the interest of National Defense, the Saginaw County Medical Society is arranging for an all-day Symposium on Industrial Health and Safety to be held at the Bancroft Hotel on November 12, 1940. This is the first attempt by a County Medical Society in the United States to sponsor such a program. Ten or more nationally known speakers will be on the program to cover all phases of in-



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dustrial health and safety and their relationship to manufacturing, personnel and National Defense. There will be morning, luncheon, afternoon and evening sessions. All medical clubs, societies and individuals in the Saginaw Valley interested in the various phases of industrial health and safety will be invited to attend. The details are being arranged by the Industrial Health Committee consisting of Dr. R. D. Mudd, Chairman, Dr. V. L. Hill, Dr. E. D. McKinnon and Dr. D. E. Thomas. The Industrial Nurses of Michigan will hold their annual meeting at the same time.

* * *

Captain L. A. Potter, Inspector for the State Health Department, has been busy. Distributors of the book "The Library of Health" on a house-to-house basis were apprehended in Lansing early in September. It seems that the book, which was being sold for $21.00 answered all questions relative to health. One lady who was selling the book stated that she was a practical nurse, having obtained all of her nursing training from the book!

A Max W. Frank of Jackson was convicted by the Jackson Circuit Court jury on October 1, of practicing medicine without a license, on evidence supplied by Captain Potter. Mr. Frank was sentenced on October 5, to pay $100 fine and costs and given two years probation.

* * *

Doctors at Work is the title of the sixth annual series of dramatized radio programs to be presented by the American Medical Association and the National Broadcasting Company.

The series will open *Wednesday, November 13, 1940,* and run for thirty consecutive weeks, closing with a broadcast from the A.M.A. meeting at Cleveland, on June 3, 1941. The program is scheduled for 10:30 P.M. Eastern Standard Time (9:30 Central; 8:30 Mountain; 7:30 Pacific time) over the Blue network, other NBC stations and Canadian stations.

The programs will dramatize what modern medicine offers the individual in the way of opportunities for better health and the more successful treatment of disease. Incidental to this main theme, the programs will explain the characteristics of the different fields of modern medicine and its specialities.

Descriptive posters for local distribution may be had gratis from the Bureau of Health Education, American Medical Association, 535 N. Dearborn St., Chicago. Program titles will be announced weekly in *The Journal of the A.M.A.* and monthly in *Hygeia*, the Health Magazine.

* * *

MSMS DISTRICT MEETINGS

Seven District meetings have already been held as the November JOURNAL goes to press.

The *First and Sixteenth Districts* held a combined meeting on November 4 at the Detroit Art Institute. A. S. Brunk, M.D., Chairman of The Council, presided at the meeting. The speakers included President-elect H. R. Carstens, M.D., Detroit; Secretary L. Fernald Foster, Bay City; President P. R. Urmston, Bay City; Councilor C. E. Umphrey of Detroit and Executive Secretary Wm. J. Burns, Lansing. Also present were Councilor O. O. Beck, Birmingham, and Councilor T. E. DeGurse, Marine City.

At the *Third District* meeting held in Battle Creek on October 22, Wilfrid Haughey, M.D., Battle Creek, presided. Those who participated in the program in-

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cluded Secretary L. Fernald Foster, Bay City; Roy Herbert Holmes, M.D., Muskegon, and Vernor M. Moore, M.D., Grand Rapids.

The *Fourteenth District* meeting was held in Ann Arbor on October 8, with Councilor H. H. Cummings, Ann Arbor, presiding. Among the speakers on this program were President-elect Henry R. Carstens, Detroit; Secretary L. Fernald Foster, Bay City; Council Chairman A. S. Brunk, Detroit; and Executive Secretary Wm. J. Burns, Lansing.

The *Fourth District* meeting was presided over by Councilor R. J. Hubbell, Kalamazoo, and was held in Kalamazoo. The program of this meeting consisted of talks by President-elect Henry R. Carstens, Detroit; Secretary L. Fernald Foster, Bay City; Legislative Committee Chairman Harold A. Miller, Lansing; Councilor V. M. Moore, Grand Rapids; and Executive Secretary Wm. J. Burns, Lansing.

The *Fifth District* meeting met in Grand Rapids on October 29, Councilor V. M. Moore, presiding. The speakers included President-elect Henry R. Carstens, Detroit; Councilor Wilfrid Haughey, Battle Creek; and Secretary L. Fernald Foster, Bay City. Among the honor guests were Speaker of the House of Delegates O. D. Stryker, Fremont; Councilor Roy Herbert Holmes, Muskegon; Burton R. Corbus, M.D., and Councilor R. J. Hubbell, Kalamazoo.

The *Sixth District* meeting was held in Owosso on October 29, councilor Ray S. Morrish, Flint, presiding. Speakers included Councilor R. C. Perkins, M.D., Bay City; H. A. Miller, M.D., Lansing; Council Chairman A. S. Brunk, Detroit; and Executive Secretary Wm. J. Burns, Lansing. Among the honor guests were Councilors W. E. Barstow, St. Louis; T. E. DeGurse, Marine City.

Other District Meetings are being arranged and it is anticipated that all of the District meetings will have been held by the end of November. A special invitation to each physician to attend his important district meeting is being mailed by President Urmston.

* * *

COUNTY SOCIETY MEETINGS

Bay—Wednesday, October 23—Wenonah Hotel, Bay City—Speaker: Stanley W. Insley, M.D., Detroit, on "Clinical Management of Allergic Diseases."

Berrien—Wednesday, August 7—Berrien Hills Country Club—Ladies' Night—Speaker: George Green, M.D., South Bend, Indiana, on a surgical subject. Thursday, September 5, Hotel Whitcomb, St. Joseph—movies on Anemia and Amoebiasis. October 2—Four Flags Hotel, Niles—Speaker: J. Bailey Carter, M.D., Chicago.

Calhoun—Tuesday, October 1—Hart Hotel, Battle Creek—Speaker: Charles F. McKhann, M.D., Ann Arbor.

Ionia-Montcalm—Tuesday, October 8—Lakeview—Speaker: George H. Southwick, M.D., Grand Rapids, on "The Acute Abdomen."

Jackson—Tuesday, October 15—Jackson—Speakers: Norman Westlund, M.D. and Wm. H. Kelly, M.D., a Mental Hygiene Symposium.

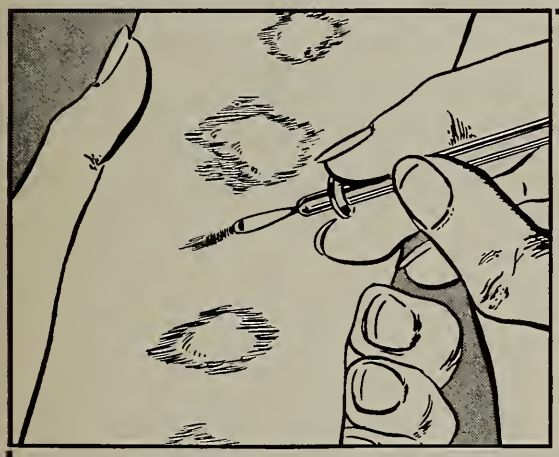
Kalamazoo—Tuesday, October 15 — Kalamazoo — Fourth District meeting.

Kent—Tuseday, October 8—Grand Rapids—Speaker: Walter Palmer, M.D., Chicago, on "Treatment of Gastric Disease."

O.M.C.O.R.O.—Wednesday, August 21—Grayling—Speakers: P. R. Urmston, M.D., L. Fernald Foster, M.D., and R. C. Perkins, M.D., of Bay City.

Oakland—Wednesday, October 2—Routunda Inn, Pine Lake—Speaker: Harther L. Keim, Detroit, on "Management of the more Common Dermatoses."

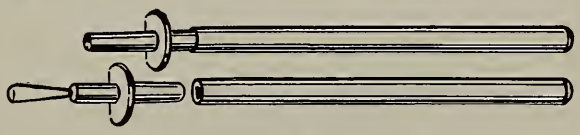
St. Clair—Tuesday, October 8—Port Huron—Speaker: S. E. Gould, M.D., Eloise, on "Pathologic Basis of Heart Disease."



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Shiawassee—Thursday, October 17—Owosso—Speaker: Kenneth E. Markuson, M.D., Lansing, on "Industrial Health."

Washtenaw—Tuesday, September 10—Ann Arbor—Symposium on Heart Disease in the form of a "Information Please" quiz, conducted by Richard McKean, R. L. Novy, Ed. Spalding, and Douglas Donald all of Detroit. Tuesday, October 8—Ann Arbor—14th District Meeting.

Wayne—Monday, October 7—Detroit — Speaker: Nathan Van Etten, M.D., New York, President of the AMA, "Medical Horizons"—Also colored movies of WCMS 1940 Golf Tournament. October 14—Detroit—Speaker: Frank H. Bethell, M.D., Ann Arbor, "Anemias Related to the Nutritional Deficiencies with Particular Reference to Pregnancy." October 21—Detroit—Speakers: Edgar E. Martmer, M.D., J. A. Johnston, M.D., J. A. Molner, M.D., and W. C. C. Cole, M.D., all of Detroit. October 28—Detroit—Speaker: James T. Priestley, M.D., Rochester, Minnesota—on "Surgical Procedures on the Genito-Urinary Tract."

CONVENTION ECHOES

A total of 2,561 registered at the Diamond Jubilee Convention of the Michigan State Medical Society (not including the members of the Woman's Auxiliary). This figure includes 1,813 members of the MSMS, plus exhibitors and guests.

* * *

The 1,813 members of the MSMS who registered at the Detroit Convention came from every corner of the state. The following cities were represented as follows: Ann Arbor, 41; Battle Creek, 31; Bay City, 17; Dearborn, 12; Detroit, 949; Flint, 77; Grand Rapids, 57; Jackson, 20; Kalamazoo, 27; Lansing, 48; Monroe, 7; Mount Clemens, 13; Muskegon, 15; Pontiac, 38; Port Huron, 13; Saginaw, 34; and Ypsilanti, 8. The balance of those registering came from towns and villages in all parts of the State.

* * *

The various specialties were represented at the 1940 Convention, according to a breakdown of the figures, as follows: General Medicine, 1,040; Surgery, 346; Obstetrics and Gynecology, 121; Ophthalmology and Otolaryngology, 145; Pediatrics, 89; Dermatology and Syphilology, 38; and Radiology, Pathology and Anesthesia, 60.

* * *

Lt. Col. Harold A. Furlong, M.D., addressed the nearly 1,000 physicians who attended the Smoker on Thursday, September 26, outlining the highlights of medical preparedness.

* * *

Joseph Stokes, Jr., M.D., Philadelphia, recently returned from a tour of France with a service commission, provided another highlight of the Smoker by relating some of his experiences and observations in war-torn Europe.

* * *

More than 300 office secretaries of physicians attended the "Symposium on the Business Side of Medicine" held on September 24.

* * *

The Coca-Cola Company dispensed 3,024 bottles of Coca-Cola to thirsty physicians during the three days of the convention.

R. B. Davis Company distributed 1,300 sample cups of Cocomalt at the convention.

Pet Milk Company supplied physicians with approximately 4,000 of the familiar Pet Milk cans, in miniature.

Philip Morris passed out 9,656 cigarettes as samples during the convention.

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* * *

Miss Marguerite Stewart, representing the American Safety Razor Corporation, traveled from New York to Detroit especially to view the MSMS exhibits and to attend the Society's dinner.

* * *

Michigan newspapers gave nearly 800 column inches to the MSMS Diamond Jubilee Convention or approximately 7,200 lines—and this despite war, politics and pretty girls!

* * *

The 1940 Golf Champion of the Michigan State Medical Society is J. H. Albers, M.D. of East Lansing, who won the President's Trophy at the 4th Annual Golf Tournament of the MSMS held at the Detroit Golf Club, September 23, with a low gross of 78. Other prize winners at the 1940 Tournament included C. D. Brooks, M.D., J. E. Hauser, M.D., John M. Murphy, M.D., Don Jaffar, M.D., all of Detriot, R. B. Harkness, M.D., Hastings; E. F. Sladek, M.D., Traverse City; L. J. Morand, M.D., D. P. Foster, M.D., George VanRhee, M.D., M. E. Danforth, M.D., Herman Scarney, M.D., A. E. Catherwood, M.D., H. F. Dibble, M.D., and C. D. Benson, M.D., all of Detroit; Philip A. Riley, M.D., Jackson; and B. B. Bushong, M.D., Traverse City.

STOLEN: Two Binocular Zeiss microscopes, numbers 177235 and 177655. If any physician or hospital gains knowledge of these microscopes, please wire Superintendent, Hurley Hospital, Flint, Michigan.

READING NOTICES

NEW LOCATION

Since November 1, 1940, the G. A. Ingram Company has been located in its new, fully modernized quarters at 4444 Woodward Avenue, Detroit, opposite the Wayne County Medical Society. The telephone number, Temple 1-6880, is the same as that used in the former location.

It is felt that the new location will greatly convenience members of the profession due to central location and proximity to a number of the major hospitals. Ample parking space is available in the rear of the store.

Permanent displays of furniture and equipment will be available for inspection. A cordial invitation is extended to all physicians to inspect the new facilities at 4444 Woodward Avenue.

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The fraction earlier supplied in powder as Liver Extract No. 343 is now designated Liver Extract, Lilly, each 12.75 Gm. or three vials containing 1 U.S.P. unit for oral administration. Ampoules Solution Liver Extract, 1 U.S.P. unit per c.c., is identical with the product formerly entitled Solution Liver Extract, Lilly, and Ampoules Solution Liver Extract, 2 U.S.P. units per c.c., is the product previously available as Solution Liver Extract Concentrated, Lilly. Solution Liver Extract Purified is now marketed as Ampoules Solution Liver Extract, 15 U.S.P. units per c.c.

* * *

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* * *

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A recent announcement by the Research Laboratories of the S.M.A. Corporation reveals that they are now in a position to provide vitamin-free casein and other vitamin-free foods for experimental purposes to researchers who have previously been obliged to manufacture these items for private use.

For many years the S.M.A. Corporation has been producing these foods exclusively for use in their laboratories. Now, with the expansion of their own facilities and the realization of the convenience to others engaged in laboratory work this offer is made to provide vitamin-free diets at an exceptionally reasonable cost. Quantities of one, five, ten or 100 pounds or more may be ordered directly from the Research Laboratories, S.M.A. Corporation, Chagrin Falls, Ohio.

* * *

E. V. FRAENKEL ELECTED PRESIDENT

Frederick Stearns & Company of Detroit announced on September 24, 1940 the election of Mr. E. V. Fraenkel as President of the Company. Mr. Fraenkel was formerly General Manager of Stearns, having risen from the ranks to that position.

A native of Australia, Mr. Fraenkel received his education in that far-off country, and started his career as a detail and salesman there.

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THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

MODERN DERMATOLOGY AND SYPHILOLOGY. By S. William Becker, M.D., Associate Professor of Dermatology and Syphilology, Kuppenheimer Foundation, University of Chicago, and Maximillian E. Obermayer, M.D., Assistant Professor of Dermatology and Syphilology, Kuppenheimer Foundation, University of Chicago. 461 Illustrations in text. 32 full color plates. Philadelphia, London, Montreal, J. B. Lippincott Company, 1940. Price: $12.00.

This is a streamlined, completely modern textbook on dermatology almost universally praised by the dermatologists. The authors have taken advantage of the newer approaches towards cutaneous disease complexes and have arranged the material to correspond. They have arranged the material from the functional point of view and "where this has been impracticable, dermatoses have been grouped according to common etiology or based on diagnostic consideration." The very rare conditions are not included thus making its use simpler for the general practitioner who desires a new book on dermatology. The chapter on industrial dermatoses, which is at present of such intense interest and of great prominence, is splendidly handled. The plates are especially well selected. It is easy to recommend this book to any physician.

AN ANATOMICAL ANALYSIS OF SPORTS. By Gertrude Hawley, M.A., Formerly in charge of Physical Education of Women at Northwestern and Stanford Universities. Author of "The Kinesiology of Corrective Exercise." New York, A. S. Barnes and Company, 1940. Price: $3.00.

This book is of more interest to athletic directors than to physicians although to those whose professional work takes them into contact with high school and college athletics it may answer some of the questions whose answers are not easily available through current textbooks. The muscles which are especially used in various sports are named and their actions described. The reasons for certain types of accidents and injuries which occur in the various sports are also explained on an anatomical basis. There is likely some advantages in this book to the physician interested in rehabilitation of patients with muscular impairment.

SIMPLIFIED DIABETIC MANUAL. With 163 international recipes (American, Jewish, French, German, Italian, Armenian, etc.) By Abraham Rudy, M.D., Associate Physician and Chief of the Diabetic Clinic, Beth Israel Hospital, Boston; Instructor in Medicine, Tufts College Medical School; Consultant in Diabetes, Jewish Memorial Hospital, Roxbury, Mass.; and Jewish Tuberculosis Sanatorium, Rutland, Mass. Introduction by Dr. Frederick M. Allen. New York, M. Barrows & Company, Inc., 1940. Price: $2.00.

This volume has been offered for the use of the diabetic patient. It contains the usual instructions regarding the disease and is written in a simple and readable manner. Besides the usual tables and recipes, a considerable number of recipes are included to make it possible for the patient with racial or religious restric-

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GYNECOLOGICAL AND OBSTETRICAL PATHOLOGY. With Clinical and Endocrine Relations. By Emil Novak, A.B., M.D., D.Sc. (Hon. Dublin), F.A.C.S., Associate in Gynecology. The Johns Hopkins Medical School; Gynecologist, Bon Secours and St. Agnes Hospitals, Baltimore; Fellow, American Gynecological Society, American Association of Obstetricians, Gynecologists and Abdominal Surgeons and Southern Surgical Association; Honorary Fellow, Royal Institute of Medicine, Budapest; Sociedad d'Obstetricia et Ginecologia de Buenos Aires; Central Association of Obstetricians and Gynecologists; Texas State Association of Obstetricians and Gynecologists; Past Chairman, Section on Gynecology and Obstetrics, American Medical Association. With 427 Illustrations. Philadelphia and London, W. B. Saunders Company, 1940.

Novak says that here he has taken a middle course between a brief and superficial volume of but little value to those really interested and an exhaustive and encyclopædic work which would be of little practical assistance. He has ably accomplished this purpose. It is written with the emphasis on gross and histopathology of these conditions and is profusely illustrated with microphotographs. To the studious physician who is interested in modern investigation of pelvic disease this book is indispensable.

THE ERA KEY TO THE USP XI AND NF VI. Fifth Edition. Revised by Lyman D. Fonda, Professor of Pharmacy, Brooklyn College of Pharmacy, Long Island University. Newark, N. J., The Haynes and George Co., Inc., 1940. Price: $1.00.

The fifth edition of this condensed pharmacopœia contains many tables, lists and glossaries which will provide the needed source for information regarding all except the rarest of the drugs. In a very small size, there are many times when it might be valuable and yet use very little space in the doctor's bag or library.

THE HEAD AND NECK IN ROENTGEN DIAGNOSIS. By Henry K. Pancoast, M.D., Late Professor of Radiology and Director of the Department of Radiology, University of Pennsylvania; Eugene P. Pendergrass, M.D., Professor of Radiology and Director of the Department of Radiology, University of Pennsylvania; J. Parsons Schaeffer, M.D., Ph.D., Professor of Anatomy and Director of the Daniel Baugh Institute of Anatomy, Jefferson Medical College. Springfield, Illinois and Baltimore, Maryland; Charles C. Thomas. Price: $12.50.

These authors, who are among the best known in their field, have produced a volume which ties in the roentgenological findings with the basic sciences. The completeness and yet the ready accessibility of this volume is astounding. While it is a "must" book for the roentgenologist and the specialist in eye, ear, nose and throat, it is a much needed reference book for the orthopedist, traumatic surgeon, the neurologist, dentist and any practitioner who has more than a casual interest in this field.

THE DIAGNOSIS AND TREATMENT OF CARDIOVASCULAR DISEASE. By Fifty-Six Distinguished Authorities. Edited by William D. Stroud, B.S., M.D., F.A.C.P., Professor of Cardiology, University of Pennsylvania Graduate School of Medicine; President of the American Heart Association; Treasurer and Member of Board of Regents, American College of Physicians; Licentiate of the National Board of Medical Examiners and the American Board of Internal Medicine; Cardiologist to the Pennsylvania, Graduate, Bryn Mawr, Ab-

Say you saw it in the Journal of the Michigan State Medical Society

ington Memorial, St Christopher's and Children's Heart Hospitals. Fully Illustrated. Two volumes. Philadelphia: F. A. Davis Company, 1940. Price: $18.00.

William D. Stroud and fifty-five collaborators, including most of the leading cardiologists of the civilized world, have produced a complete two-volume text on all cardiovascular diseases. According to the author this is the first time that a comprehensive volume has been published. It has been kept quite practical in its character and is rather easy to read and understand. Especially interesting chapters are: Beck on "Surgery of the Heart and Pericardium"; Grant on "Relief of Pain in Angina Pectoris"; Soma Weiss on "Heart and Deficiency Diseases"; Allen on "Normal Blood Pressure and Its Variations"; Steiglitz on "Hypertensive Arterial Disease"; Buerger on "Thromboangiitis Obliterans"; de Takats on "Vascular Anomalies" and on "Varicose Veins"; Sprague and White on "Introduction to Diseases of the Cardiovascular System"; Paul on "The Epidemiology of Rheumatic Fever"; Dock on "Bacterial Endocarditis"; Stokes on "The Treatment of Cardiovascular Syphilis"; Barr on "The Heart and Diseases of Internal Secretion"; Roesler on "Cardiac Hypertrophy and Dilatation"; Levine on "The Cardiac Patient as a Surgical Risk"; and Wilson on "The Form of the Electrocardiogram."

The two volumes are actually a group of monographs which are excellently coördinated into a very complete text on diseases of the heart. The illustrations are numerous and carefully selected and the printing is excellent. These volumes are of decided value to anyone interested in diseases of the cardiovascular system.

DOCTORS IN SHIRTSLEEVES. Musings on Hobbies, Meals, Patients, Sport and Philosophy. By Sir Henry Bashford. 294 pages. Price $2.50, cloth binding. New York: Veritas Press, 1940.

This is a book outlining the interesting avocations and hobbies of doctors of medicine, mainly Englishmen. It indicates how a man may profitably (especially as far as maintaining health is concerned) spend his leisure hours. Some of the avocational activities are unique in character and worth emulating.

HEART FAILURE. By Arthur M. Fishberg, M.D., Associate in Medicine, Mount Sinai Hospital, New York City. Second Edition, thoroughly revised. Illustrated with 25 engravings. Philadelphia: Lea & Febiger, 1940. Price: $8.50.

Fishberg's well-received monograph is presented here in the second edition to include the notable advances which have resulted from clinical experimental investigations recently. These advances are translated into advice applicable to everyday practice. The signs of impending cardiac failure and a clear discussion of what should be done and how much to expect, makes this a valuable book to the general practitioner as well as to the specialist.

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● Generalities as to human nutritive requirements are of but limited use in the practical application of our modern knowledge of nutrition. This is particularly true where expert and experienced advice on diet formulation is not readily or conveniently available. For those concerned with actual diet planning or administration, more specific information on nutrition is desirable.

During recent years, several excellent texts have become available which present reliable guidance in diet planning (1, 2, 3). One important factor governing conformance with any diet pattern, of course, is the economic status of the individual, family, or group. A recent text presents a workable system in which rather full consideration has been given to this factor (1).

Under this pattern, the common foods have been classed according to their nutritive contributions into some 12 groups. These groups include milk; potatoes and sweet potatoes; mature dry legumes and nuts; tomatoes and citrus fruits; leafy green and yellow vegetables; other vegetables and fruits; eggs; lean meat, poultry, and fish; flour and cereals; butter; other fats; and sugar. There will, of course, be quantitative differences in the nutritive values of individual foods within a single group. However, there is sufficient similarity so that the foods within a group can be used interchangeably as conditioned by factors such as availability, relative costs, and personal, racial, or religious preferences. In order to minimize variation of nutritive values obtained from each food group, it has been suggested that as wide a variety of foods within a group, as practical, be consumed.

In connection with this diet plan, desirable yearly food allotments for persons of various sex, age, or conditions of life are also listed in terms of these twelve food groups. Thus, from information regarding the sex, age, and activities of the members of a family or group, one can compute the yearly amounts of the various foods which should be provided. From the sum of these yearly totals, the food allowances per week or month for the family or group can be estimated. The latitude in the choice of foods, within the twelve specified food groups, makes the diet pattern more adaptable to situations where the economic factor must be considered.

Estimation of food requirements in this manner provides a practical method of diet planning designed to supply the nutritive requirements of an individual, a family, a group, or even a nation. However, the ultimate achievement of an improved nutritional status is dependent upon a readily available supply (at all times) of the various common foods at reasonable cost. It is apparent from the listing of the twelve food groups that many materials of a perishable nature—which are not conducive to year-round production near the centers of large populations—are indispensable in supplying the dietary requirements of our people. Thus, the transportation and storage of foods, in such a manner as to retain nutritive values, are important problems to be considered.

Needless to state, commercially canned foods are well adapted for use in this diet plan. Commercial canneries are located near the sites of abundant supply of freshly harvested foods. The canning processes convert the perishable foods into nutritious canned foods which can be economically transported and marketed throughout the year. Hence, the canning industry plays an important role in the practical aspects of diet planning to improve the nutritional status of the American people.

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REFERENCES

1. 1939. Food and Life; Yearbook of Agriculture, U. S. Dept. of Agriculture, U. S. Govt. Printing Office, Washington, D. C.
2. 1939. Accepted Foods and Their Nutritional Significance, Council on Foods of the American Medical Association, Chicago.
3. 1940. J. A. M. A. 114, 548.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned-foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the sixty-sixth in a series which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



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Seventy-five Years of Social Contribution*

An Historical Review

By Burton R. Corbus, M.D.
Grand Rapids, Michigan

■ Seventy-five times in as many years have the members of the Michigan State Medical Society come together to discuss their common problems, to exchange ideas relating to professional matters, to have brought before them the newer methods for the treatment of disease, and to learn of the advances in medical science. It is evident that both the doctor and his patient will profit from such meetings, but there are by-products of yet greater value, for from these meetings have come a unity of purpose, a spirit of accord, and a strong organization with broad objectives, active in many lines of endeavor, ever emphasizing the need for improving the quality of medical care, and reflecting and interpreting the views of its members.

Largely through the efforts of Doctor Theodore A. McGraw of Detroit, one-time professor of surgery in the University of Michigan, and one of the founders of the Detroit Medical School, one hundred men met in Detroit seventy-five years ago, for the first meeting of this Society.

The meeting was presided over by Doctor Moses Gunn, soon to become famous as Professor of Surgery in Rush Medical College. But this was not the first medical society in Michigan. This Society was builded on the foundation of several earlier attempts to form and maintain a permanent organization, of which the most enduring was the Medical Society of the Territory of Michigan, founded in 1819.

We have a fine medical heritage for there were many strong men in the profession as far back as Territorial Days, and they have had many worthy successors. There were notable contributions made by these territorial doctors to scientific medicine, though none greater than Beaumont's epochal work on Digestion, presented to the Society shortly after he was made a member.

And there were important contributions made by physicians in fields other than medicine. Outstanding was one who contributed in many fields, Doctor Douglas Houghton, excellent physician and dentist, who was also naturalist and geologist. Under his direction, as State Geologist, much of the mineral wealth of the State was discovered and located. He was professor and Regent of the University, mayor of Detroit, and died at thirty-six, having contributed more than most men do in a full lifetime.

Another early regent of the University and a mayor of Detroit, was Doctor Zina Pitcher, an unusual physician for his day. He was founder of the Detroit Public School system, and is looked upon as father of the movement which led to free public schools in Michigan. By appointment of the Regents, he was chairman of the Committee to "Consider the Feasibility of Establishing a Medical Department of the University."

After these came Doctors Palmer and Donald Maclean, Connor and Carstens and Vaughan and many another. I like to think that the spirit of these men still lives in our Society.

For three quarters of a century the Society has endeavored to fulfill the most important pur-

*President's Address, delivered before the Michigan State Medical Society, September 25, 1940.

pose of such a scientific body. By constant effort it has striven to raise the standards of medical practice that the medical needs of the people of this state might be adequately satisfied. It has vigorously urged the raising of the standard of education; it has advocated and worked for the passing of such necessary laws as would protect the sick from the ministrations of the incompetent, the charlatan and the quack.

Recognizing the need of the practicing physician for further training, it has promoted postgraduate education. Recognizing that the public must be taught the need for health measures before coöperation could be obtained and laws for the protection of health instituted, this Society early established, and continues to this day, a campaign for health education for the laity. It has frequently initiated and promoted those activities, both state and local, which look to the improvement of health and social conditions.

But let me return to the meeting which we are today celebrating, and discuss, very briefly, the medical problems and the medical thought as it then existed, for only by getting a perspective of the past can we fully appreciate the present and attempt to predict the future.

The Civil War, as any war must, had dislocated the profession. The rapid growth of the country in the years immediately succeeding, made a demand for doctors which could not be satisfied. It was a period of arrant quackery. All bars to the practice of medicine were down. The Legislature of 1851 had repealed the laws that were on the statute books, and the Supreme Court had ruled that "a doctor was any one who claimed to be such." Important medical discoveries had been reported from medical laboratories and centers in different parts of the world, which were to profoundly affect medical practice, but their practical applications had not reached, and were not to reach the man in the field for many years.

The Catalogue of Harvard Medical School had not, as yet, mentioned either the microscope or the stethoscope. Neither the clinical thermometer nor the hypodermic syringe were in general use in the Civil War period. Lister had not yet adapted Louis Pasteur's work to surgical antisepsis. Bacteriology, as we know it, was not. Indeed, as this Society came into being, "the doctor remained, for all his learning, a medicine man whose chief function was to give home to the patient and relieve his relatives of responsibility." He was working in the dark, and this he realized. We note it in his speculations, speculations which were based on keen observation, and frequently these speculations anticipated the discoveries that were to come.

The Prevalent Diseases

From an early day Michigan had an "unenviable reputation as a land of swamps, the home of malarial fever of every name." In 1850 the Federal Government donated five million acres of swamp land to the State, and provided that the State should spend the proceeds arising from the sale of these lands to their drainage.

In 1874 this Society, desirous of determining whether the drainage had benefited the health of the people, sent out a questionnaire. One of the questions was, "How large a percentage of disease in your practice is of malarial origin?" The answers disclosed that outside of the city of Detroit, malaria accounted for from fifty to seventy-five per cent of all cases of disease.

We conclude from reading the Society's Transactions of this period, that the thought of the profession centered around malaria and the intermittent fevers, and with much reason. The profession of the period quite generally supported the Zymotic Theory in explaining the origin of the infectious diseases. The theory asserted that these infectious conditions were due to organic matter capable of multiplying itself in the fluids of the body.

These intermittent fevers were known to be contagious and to have a definite incubation period. Emanations arising from decaying wood were accepted as a possible cause of disease, and the possibility of there being "an epidemic condition of the atmosphere," was considered to be quite probable.

Emphatic were the arguments for and against the relationship of syphilis and tuberculosis, and the doctors argued as to whether gonorrhea and syphilis were two separate diseases, or whether such difference as was noted was due to a peculiarity of the constitution of the patient.

I find of interest the prize essay of the American Medical Association for the year 1866. It was on the "Intermittent and Remittent Fevers," and was by Doctor J. R. Black of Newark, Ohio. It being a prize essay it may be assumed that it represents correctly the thought of the time. At least it might be expected to be scientifically tenable according to the knowledge then possessed.

In the course of this paper, under the heading: "A Few Thoughts on Disease in General," he says.

"They, the ancients, had evil spirits, a multitude of angry gods, sorcery, witchcraft, evil stars, eclipses, et cetera, as their fountain of woes, while we, according to authoritative texts, have cold winds, electric disturbances, poisons from vegetable growth and poisons from vegetable decay. These are the accredited sources of nine-tenths of our diseases."

and again,

"The continual grasping after some special intrinsic agent of evil is but a distracting waste of time—The cause is not in some tangible specific entity, some deadly enemy, but in ordinary vicissitudes which our inherited and acquired predispositions are not fitted to withstand."

This, then was the thought of our founders in the decade of 1865-75, yet those of us who were graduating at the turn of the century, found modern medicine here. It is almost inconceivable that medical knowledge could advance so rapidly.

The celebration of an anniversary is an interesting occasion, but it has little purpose unless the occasion is used to review the period, to take stock, and to measure our accomplishments against our failures. What have we, as a medical society, accomplished? What have been our contributions, not only to each other, but what is still more important, to society?

"Men," says John Dewey, "live in a community by virtue of the things which they have in common. What they must have in common in order to form a community or a society, are aims, beliefs, aspirations, knowledge and a common understanding, like-mindedness as the sociologists say. It is not enough that we work to a common end. We must share in what another has thought and felt."

And this we have done, both as a part of our medical Society and as a part of the community in which we live. We are, in some ways, more fortunate than other social groups in that our interests bind us together, and we are likely to share our experiences more generously.

As a Society and as individuals we have grown with the growth of medical science. While maintaining freedom of initiative and developing a social consciousness, we have brought a fine type of medical service to the individual patient, but we have done more than that. We have, as a Society and as individuals, accepted our responsibility to society and to the state, and this I look upon as our finest accomplishment.

It is my purpose to bring before you as a part of our history, some of the movements originated or promoted by this Society, to demonstrate that no other single group of citizens has contributed more to bring health and happiness and prosperity to the people of Michigan.

In the presidential address of Doctor J. Adams Allen of Kalamazoo, to be found in one of our first published Transactions, is this paragraph:

"Our duty as medical men is by no means restricted to the doling out of pills or the amputation of offending members. There is a higher sphere than this. It becomes us to consider all things that influence in any manner the perfection of body and mind, and that not only in the narrow individual sense, but also as affecting the interests of communities of nations of the world."

"This organization was not organized," he goes on to say, "nor does it continue its labor that sundry sordid objectives may be accomplished. It looks to triumph on a grander scale over disease and death, to large additions to the term of human years, to sounder bodies and consequently with this, the growth and enrichment of the State."

Actuated by this spirit the Society has become strong. In this spirit this Society functions today.

The Society early accepted a responsibility to do what it could to improve the general health of the community. It recognized the need for public health work. MacClure, in his article: "A Quarter Century of Public Health Work in Michigan," 1898, says that:

"About the only public health work that had been done in this country up to the time of the movement in Michigan for a State Board of Health, had been done in the army."

A move for the establishment of such a board was begun in the very year that this Society was organized, and the moving force was Dr. Henry B. Baker, ably assisted by Dr. H. O. Hitchcock of Kalamazoo, Dr. Bartholomew and Doctor Kedzie of Lansing, but it met with both indifference and opposition. In our Transactions of 1870 I find an article by Dr. Baker, advocating the creation of a State Board of Health, and in the Transactions of 1871, an extensive report in which he reviewed the unsuccessful effort to get the act through the Legislature.

The evidence seems conclusive that it was through the efforts of this Society that the Act establishing the Board of Health, was enacted in 1873, over much opposition.

Had the Society succeeded in getting the legis-

lature to pass the bill in 1870, Michigan would have been the second state to have a Board of Health.

The Transactions in the years immediately following our organization, give abundant evidence of the very special interest of the Society in the prevention of disease, and in particular its prevention through proper drainage, proper water supply and sewage control.

"I know of no other state nor other Board of Health which undertook at so early a date, to systematically labor by educational efforts for the prevention of typhoid fever."

wrote Dr. Baker, the first secretary of the State Board of Health.

The Society has ever had a very special interest in the health of the school child, and has shown this interest many times. It is interesting to note that much of the Transactions of 1873 is devoted to exhaustive reports of committees appointed for the purpose of considering the hygiene of school children. The reports took into consideration the construction, warming, ventilation and sewage of the school buildings.

In 1871 Dr. H. O. Hitchcock chose as the topic of his presidential address: "The Necessity of Educating the Public in the Principles of Medicine."

We have long accepted this as one of our obligations. The Joint Committee on Health Education, a group today of some twenty-three organizations, distributes factual information on health, to the laity through the Speakers' Bureau, radio outlets, and newspaper columns. Originated by this Society some 20 years ago, it has had, from the beginning, the support of the University of Michigan through its Extension Division. These two organizations continue to be the dominant units.

The Society initiated the Act of the Legislature which led to the establishment of the Division of Vital Statistics, that the causes of death and the prevalence of disease might be accurately recorded.

It promoted the establishment of insane asylums and asylums for the deaf and dumb, and in 1900 the Society appointed a committee, headed by Dr. Herbert M. King of Grand Rapids:

"to petition the legislature for an appropriation for the establishment of a properly equipped sanitarium for the treatment of the early stages of tuberculosis."

And just in passing: Michigan doctors recognized that tuberculosis was communicable before Koch discovered the tubercle bacilli.

As might be expected, the Society has ever had a keen interest in medical education and a very special interest in the University of Michigan Medical School. Michigan is credited as being the first state to establish a medical school. Heretofore the schools were of the so-called proprietary type. Yet, recalls Dr. T. A. McGraw, who in 1875 was Professor in Surgery in the University:

"The State of Michigan, while pretending to teach medicine, did nothing of the kind. It offered the Regents the use of certain buildings, for that purpose, but means for conducting the institution must be obtained from the fees of students, and as the fees were extremely small, the classes must be large if the school was not to die of inanition."

"Why," said the legislators, "should the people be taxed to teach doctors?"

There is plenty of evidence in the Transactions to show that there was constant pressure put on the faculty to raise the standards of medical education, and indeed it was needed. An article entitled "Medical Education in the United States," by Dr. H. C. Wood, Jr., in Lippincott's Magazine of 1875, has this to say:

"A striking illustration of the degradation of medical education in this country is furnished by the last catalogue of the University of Michigan, an institution which is deservedly regarded as the chief center of culture in the middle west."

and he goes on to say:

"They require for their medical degree, scarcely a sixth part of what they do for their degree in engineering, and barely more than half of what they deem necessary for a mere druggist."

At this period an applicant for a degree in medicine was required to attend two courses of lectures of six months each, and this compared favorably with most, if not all, of the colleges in the country. Dr. Wood's criticism was quickly answered by a colleague, Dr. Penrose, of Philadelphia, who argued that the country had not yet developed to the point where higher educational requirements were practical. In 1875 the Society passed a resolution directed to the Regents, asking for a full three years graded course and lectures, and requirements for admission equal to those required for admission into the scientific department.

Today the Michigan State Medical Society, proud of its two medical schools, the University of Michigan, and Wayne University, coöperates with them in an expansion of postgraduate opportunities. We take particular pride in the part that this Society has played in this activity.

The Department of Postgraduate Medicine of the University Medical School was organized in compliance with a recommendation of the Michigan State Medical Society to the Regents of the University, and the operation of the so-called Michigan plan, which gives every member of the Society the opportunity for a continuous education, has been a joint activity. This wide distribution of opportunity brings a higher quality of medical care to every part of the state. The many favorable comments indicate that the laity understands and appreciates this.

With a background of social consciousness, it is not surprising that the members of the Michigan State Medical Society, individually and as a society, have been responsive to the new social philosophy which:

"conceives a social order which is under obligation to give its members wholesome conditions of living, and believes that all should receive a fair proportion of the advantages which, in the past, only the special few enjoyed."

As physicians we recognize that adequate medical care and treatment are not the least of these advantages.

This year the Michigan State Medical Society has put this philosophy into practical application with Michigan Medical Service, a non-profit prepayment plan to cover the cost of illness for those of the lower income group. Michigan recognizes that the social aspects of medical care cannot remain static, and that the two must necessarily be associated.

Adequate medical care today is a far different type of care than was satisfactory even twenty years ago, and if the patient is to have the benefit of the new instruments of precision for diagnosis, and the newer methods of therapy, a way must be found to bring it within his financial means. We believe that we have found that way. It has taken many years of study and hard work, beginning with the exhaustive Survey of Medical Service and Health Agencies in Michigan, which a committee of this Society completed and reported in 1933, but it is now fairly launched with nearly one hundred thousand subscribers. We do not look upon this plan as just an answer to the ideas held and the propaganda instituted by those who would have a new system for medical practice instituted in this country. Rather is it the evidence of an orderly evolutionary progress of a system of practice which has throughout the ages conformed to the changing needs of the people it serves.

We recognize that this plan fails to meet the needs of the lowest income group and the indigent. We are quite aware that the contribution of charity service by the profession of this country, which is estimated as amounting to a million dollars a day, is not meeting this problem. We do not have the solution, but we know that it is not to be solved by any plan which does not recognize and emphasize that the underlying cause of much of the existing ill health and disease is to be found in poverty, ignorance, poor nutrition, bad housing and crowded living. It is not in the first instance, a medical problem. It is an economic problem. But as medical care must come into the problem any satisfactory solution must include good medical care. As an organization and as individuals our ambition is to see good medical care distributed in the American way, to all who need it, to rich and poor alike.

On our fiftieth anniversary we met in Grand Rapids under the presidency of our beloved Doctor Reuben Peterson. I have earlier brought to you his greetings. Then, as now, a vicious, destructive war was in progress. We did not think it possible that we should be engulfed in that war, but we were, and splendid was the sacrifice and service contributed by the medical profession.

A threatening situation has again forced the Government to prepare for possible eventualities. Through the American Medical Association the profession has offered its services. Our State Committee on Medical Preparedness has been appointed and is coöperating with a like committee of the American Medical Association and with the Federal Government. We will do our part both as an organization and as individuals.

The need for special instruction for the examination of recruits, for special instruction in diseases prevalent among large groups of men, for instruction in certain types of war surgery, will be met by this Society through its Postgraduate courses whose program will be enlarged to take in these subjects.

It will be a disturbing year for men's attentions are bound to be distracted from the scien-

tific aspects of medicine and from their medical society, yet never was there a time when cohesion was so necessary, for war, even the preparation for war, necessitates regimentation of doctors as well as fighting men, and the danger of permanent regimentation, under these conditions, is very great. If it is to be prevented, it will be by a unity of action. Under these conditions it will be futile to look into the future in an attempt to foretell what is to be the trend of practice. We can and will satisfactorily meet the newer social trends and the inevitable change in conditions in our own way, the American way, if we are permitted to do so.

We can be confident that though the catastrophe of an extensive war may delay, it will not block scientific advances. We are on the threshold of new and important discoveries which are likely to revolutionize the practice of medicine, even as it has been revolutionized during the life of this Society.

The Michigan State Medical Society, with a social consciousness well developed, accepting its responsibility to society and state, as well as to its members, has grown strong. That it will continue to grow still stronger, is a reasonable expectation.

"Linked together by the strong bonds of unity of interests, the profession of medicine forms a remarkable world unity in the progressive evolution of which there is fuller hope for humanity than in any other direction.", wrote Doctor Osler. It is a satisfactory thought with which I close. I am proud to belong to that profession.

HOW TO STAGNATE IN MEDICINE

There are several rules which must be kept in mind, if we wish to deteriorate in medical skill and knowledge.

The first rule: File your patient's records away and forget all about them. Never go over them after the day's work is done and try to pick out errors of omission or commission; never try to follow up patients to learn whether your diagnosis was correct and if your treatment helped the patient. Best of all, keep only a few scribbled lines about each case, preferably without making any attempt at a diagnosis.

The second rule: Read medical books and magazines with an eye only for the "practical"—that which can be used at once. Skip over the physiology, pathology and differential diagnosis, so that you can concentrate on treatment. Read the summaries at the end of articles; only a sucker will dig through the article itself.

The third rule: Never take a chance on confirming your diagnosis by consultation with a specialist (unless, of course, an unreasonable patient insists on it and you can't snub the bounder) or by necropsy. Thus you can cheerfully go ahead making the same mistakes over and over. Most people don't know the difference, any way.

By following these basic precepts and by avoiding postgraduate courses and medical meetings, you may be assured of a comparatively rapid, and certainly unlaborious, decadence—*Clinical Medicine and Surgery.*

Leukocyte Counts

Evaluation of Total, Differential and Absolute Counts*†

By Edwin E. Osgood, M.D.
Portland, Oregon



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■ Although leukocyte counts are made and interpreted in most physician's offices daily, few appreciate the many sources of error in the technic and interpretation of these determinations nor obtain the full information which could be obtained from such counts.

Sources of Error

To be accurate, total leukocyte counts should be done on oxalated blood[1] obtained by venipuncture, and each detail of the technic must be followed meticulously.[2] Vejlens[3] has shown that with blood from the finger or ear, at least the first three freely flowing drops should be discarded and the count be taken from succeeding drops, collected without pressure or manipulation or there is danger of error from leukocytes adhering to the walls of the arterioles and venules. Even with the most meticulous technic, however, a certain error due to the laws of chance of random sampling is unavoidable. This error is greater (Table I[4]) the fewer the leukocytes counted. All reports of leukocyte counts and differential counts should include a statement of the number of cells on which the count is based. The use of the table is explained in reference 4.

The prime requisites for accurate differential cell counting are a thin, well stained smear with a uniform distribution of the cells. To

* From the Department of Medicine and the Division of Experimental Medicine, University of Oregon Medical School, Portland, Ore. Presented before the meeting of the Michigan State Medical Society, Grand Rapids, Michigan, September 19, 1939.

† Because of lack of space most of the tables have been omitted and the article has been abbreviated. Tables and much of the omitted material may be found in the references cited.

TABLE I. THE UNAVOIDABLE ERROR IN COUNTING METHODS**

No. of cells counted X	Standard deviation ±*	Per cent within which true count lies† ±	Standard deviation of the difference‡ ±	Significant difference in per cent§ ±
10	3.1	62	4.5	90
20	4.5	45	6.3	63
30	5.5	37	7.7	51
40	6.3	32	8.9	45
50	7.0	28	10.0	40
60	7.7	26	10.9	36
70	8.4	24	11.8	34
80	8.9	22	12.6	32
90	9.5	21	13.4	30
100	10.0	20	14.1	28
125	11.2	18	15.8	25
150	12.2	16	17.3	23
175	13.2	15	18.7	21
200	14.1	14	20.0	20
250	15.8	13	22.4	18
300	17.3	12	24.5	16
350	18.7	11	26.4	15
400	20.0	10	28.3	14
500	22.4	9	31.6	13
600	24.5	8	34.6	12
800	28.3	7	40.0	10
1200	34.6	6	49.0	8

* $\sqrt{x}$

† $\frac{2\sqrt{x}}{x} \cdot 100$

‡ $\sqrt{2x}$

§ $\frac{2\sqrt{2x}}{x} \cdot 100$

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obtain such smears, it is essential that all details of the technic[5] be followed. In a properly made smear, neither end of the smear should approach the end of the slide, there should be no waves or holes, an appreciable area of the smear should be thin enough so that the red cells do not touch each other, and counting should be done only in such areas.

Nomenclature and Cell Identification

At the present time, so many names are applied to the same cell and these names have been so differently or vaguely defined that it is almost impossible to compare differential cell counts made in one laboratory with those made in another. In an effort to overcome this difficulty, the nomenclature[6] shown in Table II[7] was suggested. A system of cell identification has also been developed which should aid in finding the name of a cell which has never been seen before (Tables III, IV, V, VI, VII, in reference 8). The headings to the tables should be regarded as questions to be asked about each cell seen. The numbers in the last column in the tables refer to the number of the illustrations and the discussion of the corresponding cells in the Atlas.[9]

Normal Values[10]

The figures of 5,000 to 10,000 leukocytes per c.mm. as the range of normal for leukocyte counts have been copied from year to year in textbooks without verification, and almost no reliable data have been available on normal total and differential leukocyte counts in children. The author and his coworkers[10] have, over a period of years, studied a large series of strictly healthy persons of both sexes and almost all age groups. We have found that the figures differ widely from those usually given. These normal standards (Table VII in reference 2) show a wider range, higher lymphocyte counts, and lower neutrophil counts than the figures usually given. The probable reason for the lower neutrophil counts is that strictly healthy persons were studied; whereas most previous studies ware based on outpatient clinic or hospital patients thought not to have a cause of leukocytosis.

Leukocytoses and Leukopenias

When these normal standards were determined, it became apparent that many leukocyte counts have been classified in the past as abnormal which were really within normal limits; furthermore, in the usual classification of leukocytoses and leukopenias, attention was paid largely to the cells which were increased. The fact that a decrease in numbers of other cell types was of equal importance was overlooked. It was found of considerable diagnostic aid to reclassify the leukocytoses and leukopenias as shown in Table 21 in reference 11. The range of total leukocyte counts given in Table 21 in reference 11 includes the range of leukocyte counts usually found in the diseases listed in the Atlas[12] as causing this picture. Of course, the term "leukocytosis" should not be applied unless the count in the particular patient is above the upper limits of normal for the patient's age group, and the term "leukopenia" should not be applied unless the count is below the lower limits of normal for the patient's age group.

Note that in true neutrophilia or neutrophilic leukocytosis there is not only an increase in

TABLE II. NOMENCLATURE†

Name of series	Recommended name	Names which have been applied to the same cell
Lymphocyte	Lymphoblast	Myeloblast,[1] hemocytoblast,[2] lymphoidocyte,[3] stem cell, lymphocyte[4,5]
	Prolymphocyte	Large lymphocyte,[6] pathologic large lymphocyte,[6] atypical leukocytoid lymphocyte,[1] monocyte[5]
	Lymphocyte	Small, medium, or large lymphocyte, normal lymphocyte, small, medium or large mononuclear
Monocyte	Monoblast	Myeloblast,[1] hemocytoblast,[2] lymphoidocyte,[3] lymphocyte,[4,5] stem cell, immature monocyte
	Promonocyte	Premonocyte,[7] hemohistioblast,[2] immature monocyte
	Monocyte	Large mononuclear,[8] transitional,[8] clasmatocyte,[9] endothelial leukocyte,[4] histiocyte,[10] resting wandering cell[4]
Granulocyte (Myeloid)	Granuloblast	Myeloblast,[1,6] hemocytoblast,[2] lymphoidocyte,[3] lymphocyte,[4,5] stem cell
	Progranulocyte S*	Promyelocyte I,[6] myelocyte A,[9] myelocyte, non-filament,[11] class I[12]
	Progranulocyte A	Promyelocyte II,[6] leukoblast,[1] basophil myelocyte,[13] myeloblast,[5] premyelocyte[9]
	Granulocyte	Myelocyte,[6] myelocyte B,[9] non-filament,[11] class I[12]
	Metagranulocyte	Metamyelocyte,[6] juvenile,[14] myelocyte C,[9] non-filament,[11] class I[12]
	Rhabdocyte	Staff cell,[6] stab cell,[14] band cell,[15] non-filament,[11] class I,[12] rod nuclear,[16] polymorphonuclear
	Lobocyte	Segmented neutrophil,[6] polymorphonuclear, filamented,[11] class II, III, IV or V[12]
Plasmacyte	Plasmablast	Myeloblast,[1] hemocytoblast,[2] lymphoidocyte,[3] lymphocyte,[4,5] stem cell, lymphoblastic plasma cell[1]
	Proplasmacyte	Türk cell,[6] Türk irritation form, lymphoblastic or myeloblastic plasma cell[1,4]
	Plasmacyte	Plasma cell,[6] Unna's plasma cell, Marschalko plasma cell, plasmacytoid lymphocyte[1,3]
Erythrocyte	Karyoblast	Megaloblast,[6] myeloblast,[1] hemocytoblast,[2] lymphoidocyte,[3] lymphocyte,[4,5] stem cell, promegaloblast,[1] basophilic normoblast,[1] primitive erythroblast[9]
	Prokaryocyte	Erythroblast, megaloblast,[6] orthochromatic normoblast,[1] basophilic normoblast,[1] polychromatophilic normoblast,[1] macronormoblast,[15] macroblast[16]
	Karyocyte	Normoblast,[6] pronormoblast,[1] macronormoblast,[15] erythroblast, polychromatophilic normloblast[1]
	Metakaryocyte	Normoblast[6]
	Reticulocyte	
	Akaryocyte	Erythrocyte, red blood cell, erythroplastid, normocyte[16]
Thrombocyte	Megalokaryoblast	Megakaryoblast
	Promegalokaryocyte	Promegakaryocyte
	Megalokaryocyte	Megakaryocyte
	Platelet	Thrombocyte, thromboplastid
	Disintegrated cell	Senile cell, smudge, basket cell, smear cell, degenerated cell

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*Any basophil from the progranulocytes to the lobocyte is sometimes referred to as a *mast cell.*

1. H. Downey and K. Kato; 2. A. Ferrata; 3. A. Pappenheim; 4. A. A. Maximow and W. Bloom; 5. An error in classification; 6. E. E. Osgood; 7. P. W. Clough; 8. An obsolete term; 9. R. Cunningham, F. Sabin, and C. Doan; 10. Common term for monocytes when found in tissues; 11. D. L. Farley, H. St. Clair, and J. A. Reisinger; 12. W. E. Cooke and E. Ponder; 13. An error due to interpretation of azurophil granules as basophil granules; 14. V. Schilling; 15. A. Piney; 16. R. B. H. Gradwohl.

neutrophils with a tendency to increase in the rhadocytes (staff cells) and other immature forms, but that there is a decrease in the other cell types with, as a rule, almost complete disappearance of eosinophils and basophils. The causes of true neutrophilia include most of the acute infectious diseases, acute infections with the pyogenic organisms, and all forms of penumonia and meningitis. A more complete list of the causes of neutrophilia as well as of the other leukocytoses and leukopenias is given in the Atlas.[12]

The condition I call simple leukocytosis has not, in the past, been differentiated from neutrophilia. In this group, however, all cell types are increased and the eosinophils and basophils do not disappear. It is important to differentiate this group since most of the conditions, with the exception of gonorrhea, rheumatic fever, scarlet fever, and osteomyelitis, causing a simple leukocytosis are noninfectious. Among the more common causes are severe acidosis; large acute hemorrhages; multiple bee stings; severe pain such as that of coronary occlusion, dissecting aneurysm or trauma; severe physical exercise; Hodgkin's disease, lymphosarcoma, leukemias and other myelophthisic anemias; pregnancy and the puerperium; and polycythemia rubra vera.

The term relative lymphocytosis has been applied in the past in many blood pictures which are now seen to fall within normal limits or to represent a decrease in lymphocytes along with a decrease in other cell types. It seems more logical to classify these blood pictures as simple leukopenia or as granulopenia since the number of lymphocytes is usually actually decreased instead of increased, and to limit the term lymphocytosis to those conditions in which there is an actual increase in the number of lymphocytes present in the blood. When these criteria are applied, there remain only three important causes of lymphocytosis: pertussis, infectious mononucleosis and lymphocytic leukemias. It may occasionally occur in congenital syphilis.

Eosinophilia will prove, in nearly all cases, to be due to one of two fundamental causes: allergy, either parasitic or nonparasitic, or invasion of the bone marrow as in all the myelophthisic anemias. Many cases formerly classed as eosinophilia really belong to the group of simple leukocytoses in which the total leukocyte count is elevated but eosinophils are within normal limits as far as actual percentage is concerned.

Basophilia occurs only in the myelophthisic group of anemias.

Monocytosis of slight degree may occur in Hodgkin's disease, subacute bacterial endocarditis and tuberculosis, but is of very little diagnostic value. A monocytosis of over 20 per cent means in almost every instance monocytic leukemia, in which case promonocytes or monoblasts are likely to be present in the blood or bone marrow. Monocytic leukemia is by no means as rare as was formerly thought.[13]

Plasmacytosis occurs almost exclusively in German measles, measles, multiple myeloma and plasmacytic leukemia.[14] A few cells of the plasmacyte series may be found in any normal blood if sufficiently prolonged search is made.

The term simple leukopenia is proposed for the group of conditions formerly called relative lymphocytosis in which the essential change is a decrease in all types of cells with a differential count within normal limits or showing only an increase in neutrophil rhabdocytes (staff cells). Many of the conditions which typically give this picture may have counts within normal limits, in which case, of course, the term simple leukopenia is not applied. Among the more important causes of this blood picture are the macrocytic and splenomegalic anemias, influenza, malaria, measles, tuberculosis, typhoid fever and undulant fever. There are many other causes which are not common in this part of the country. In typhoid fever the eosinophils and basophils usually disappear but in the other conditions mentioned they are present.

The term granulopenia is used to describe that blood picture in which the neutrophils, eosinophils and basophils are greatly decreased and there is an extreme leukopenia. It occurs in agranulocytosis, aplastic anemias, aleukemic and subleukemic leukemias, and in kala-azar. In all of these conditions, this often leads to the development of stomatitis, sore throat or gangrenous necrosis of other mucous membranes.

Differential Diagnosis of Stomatitis and Sore Throat[15]

Many physicians fail to appreciate the importance of a hematologic study in any patient who has a sore throat (Table 20 in reference 16).

This table lists some of the important causes of stomatitis and sore throat in which a hematologic study is important in diagnosis. Note particularly that mouth and throat lesions may be the first symptom of agranulocytosis, aplastic anemias, leukemias or infectious mononucleosis. I have seen tonsils removed for leukemia and local applications used as the only therapy without adequate diagnosis for a number of patients with each of these conditions by supposedly well trained men, sometimes leading to possibly preventable death of the patient.

The differential diagnosis of agranulocytosis, aplastic anemias, infectious mononucleosis and leukemias may be possible only by blood and marrow studies since the mouth and throat lesions may be identical in appearance. Agranulocytosis, aplastic anemias and the aleukemis leukemias may all show a true granulopenia in the blood. In agranulocytosis, anemia and a hemorrhagic syndrome are absent. In the others, normocytic anemia and petechiæ or bleeding from the gums are the rule. Examination of the sternal marrow[17] shows disappearance of the cells of the granulocyte series in agranulocytosis, and of almost all nucleated cells in aplastic anemia; whereas in the aleukemic or subleukemic leukemias, the nucleated cell count in the marrow is normal or increased, and the pro-stage of the cell corresponding to the type of leukemia is considerably increased in percentage and often shows unusually large nucleoli.[18]

Infectious mononucleosis is characterized clinically by sore throat, fever, malaise, diffuse enlargement of the lymph nodes, enlargement of the spleen, and not infrequently by pain simulating acute appendicitis. This clinical picture is indistinguishable from that of an acute or subacute leukemia. The blood picture shows as a rule a true lymphocytosis with the presence of prolymphocytes and fenestrations in the lymphocytes.[19] Since fenestrated lymphocytes are sometimes hard to find, the picture may differ from that of subacute lymphocytic leukemia only in the absence of anemia. Since anemia is sometimes absent in the early stages of subacute lymphocytic leukemia, the Paul and Bunnell test[20] should always be done. A positive agglutination of sheep cells in a dilution of 1-32 or higher excludes leukemia, and with the clinical picture makes a definite diagnosis of infectious mononucleosis since serum disease, which clinically is entirely different, is the only other condition known to give a positive Paul and Bunnell test.

Differential Diagnosis and Classification of Leukemias[21]

The differential diagnosis and classification of leukemias has been much confused in the past by differences in definition of terms and the failure to recognize that the essential pathology of leukemia occurs in the marrow, lymph nodes and spleen, and that the presence of leukemic cells in the blood is by no means constant. Leukopenia with normocytic anemia is almost as suggestive of the presence of leukemia as a high leukocyte count, and constitutes a definite indication for sternal puncture[22] and examination of the bone marrow.

Tables 16 and 17 in reference 23 give the criteria recommended for diagnosis and classification of leukemias. Note that any diagnosis of leukemia should include a statement as to whether it is acute, subacute or chronic; as to whether it is leukemic, subleukemic or aleukemic; and as to whether it is granulocytic, lymphocytic, monocytic, plasmacytic or megalokaryocytic.

Prognosis From Neutrophil Morphology

Many methods of prognosis from total and differential leukocyte counts have been proposed.[24] In my experience, the most valuable has been grading the degree of basophilia of the cytoplasm, the number of vacuoles, and the degree of alteration from the normal of the toxic granules[25] in the neutrophils of the blood on a scale of 1 to 4 plus. One plus is the least detectable change from the normal and 4 plus is the greatest degree of change that occurs. A certain amount of experience is required but with the aid of the illustrations in the references[26] this should not be difficult to learn. A series of over 100 consecutive blood smears were selected in which any two of these changes showed a 3 plus or greater deviation from the normal, and death was predicted with no other information about these patients. More than 90 per cent of them were dead within a week. They included all sorts of conditions, including not only infections but malignant tumors and leukemias as well. Failure to find these changes, however, does not insure a good prognosis.

Summary

To obtain the maximum information from total, differential and absolute leukocyte counts, it is essential that the sources of error in the technics of these methods be appreciated, that the normal values for each age group be known, and that the importance of a decrease as well as of an increase in particular cell types be recognized. In order that data from different laboratories may be compared, it is essential that a uniform system of nomenclature and cell identification, such as that here described, be used. A useful classification of leukocytoses and leukopenias is proposed, and the importance of hematologic studies in sore throat and stomatitis have been reëmphasized. A method of accurately predicting death from changes in neutrophil morphology is given.

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Bilateral Small Cell Carcinoma

Report of a Case in a Girl Fifteen Years Old

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■ Carcinoma of the ovaries is not uncommon and no age is excepted. Bilateral carcinoma in a girl fifteen years of age is rarely seen, particularly of the small round cell type. There are numerous instances throughout the literature of malignancy of the ovary in the very young, and young. However, they are chiefly adenocarcinoma, cystic adenocarcinoma and granulosa-cell type, and unilateral.

The authors reviewed the literature back to 1905 and did not find a case of bilateral small round cell carcinoma in a patient this young.

Case Report

A fifteen-year-old American school girl was admitted December 26, 1938, to Grace Hospital, Detroit, Michigan, and the following history was obtained.

Complaint.—Abdominal distention and backache.

Present Illness.—There had been a three to four-inch expansion of the abdomen within four days. There were no other symptoms except that she fell while ice-skating on December 20 and complained of a backache, following the fall. There was jaundice, chills, fever, sweats. No cardio-respiratory, genito-urinary or gastro-intestinal symptoms were evident.

Past History.—Symptoms had been negative, except for chronic constipation. Menses began at fourteen years; regular no dysmenorrhea. Last monthly period,

December 21, 1938. Father and mother living and well, no siblings.

Physical examination revealed a well developed and nourished young white female, 5 feet, 2 inches in height, and weighing 120 pounds, lying in bed not acutely ill. Skin was clear, no icterus, thyroid slightly palpable, no lymphadenopathy. Pulse was 102; blood pressure 140/180. The abdomen was distended uniformly, and was globular in shape, the umbilical region being most prominent. The skin was tense. The epigastric angle was widened. The veins around the umbilicus were visible but not dilated. Abdominal respiratory movements were absent—no visible peristalsis. Percussion note was flat except in periumbical area where it was tympanitic. Tympanites shifted with change in position. There was an area just below the umbilicus which remained constantly flat on percussion. A fluid wave was present. There was moderate tenderness in the mid-epigastrium but no rigidity. Liver and spleen were not palpable. No masses felt. Rectal examination revealed impaired mobility of the uterus but no tenderness. No edema of the extremities. Neurological examination negative. Vaginal examination not done because of intact hymen.

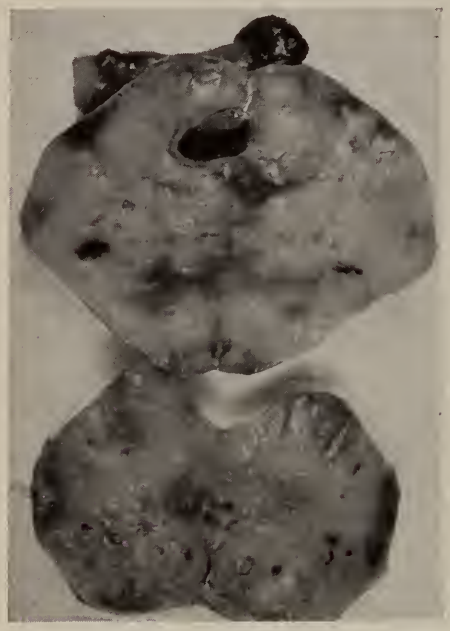


Fig. 1. Photograph of gross specimens, bisected.



Fig. 2. Photomicrograph of primary ovarian tumor.

Laboratory Report.—Hemoglobin 16 grams; red blood count 4,430,000, white blood count 11,700, polymorphonuclears 83 per cent, of which 79 per cent were filamented and 4 per cent were non-filamented; 1 per cent basophiles, 16 per cent lymphocytes.

Urine: Sp. gr. 1.004-1.012, albumin and dextrose negative, microscopic negative, mantoux text negative 1:1000. Smears of abdominal fluid showed many pus cells, no organisms. Culture negative 24-48 hours.

Provisional Diagnosis.—Cystic ovary: possibly malignant. Tuberculous peritonitis.

X-Ray Report.—Radiographic survey of the abdomen made December 28, 1938 revealed no evidence of pregnancy nor of intestinal obstruction.

There was considerable increase in the opacity of the abdomen, with obliteration of the margins of parenchymal organs and the psoas muscles as produced by accumulation of considerable fluid in the peritoneal cavity.

Examination of the chest showed considerable elevation of the diaphragm, particularly the right dome, with corresponding pulmonary compression but no apparent sign of active disease of the intrathoracic organs, especially without evidence of tuberculosis.

Operation.—On December 29, 1938 a midline abdominal incision was made. The peritoneum was first opened by a small incision which allowed a large amount of chylous-like fluid gradually to escape. The omentum was seen to be reddened and was friable. Trendelenburg position: Appendices epiploicæ were large and reddened. The mesentery of the small intestine contained nodules, which were infiltrated, evidence of metastasis; one portion of the ileum about 8 cm. in length could not be compressed and felt as though it were filled with straw. In the mesentery opposite this was a gland about 2.5 cm. in diameter.

The stomach wall was thickened on palpation, otherwise negative. A portion of the ileum, approximating the jejunum, was enveloped by a circular thickened area about 5 cm. long. The pelvis presented a mass at the right side of the uterus, which proved to be the tube, while both ovaries were several times their normal size but of firm consistency. Diagnosis of malignancy was made—possibly sarcoma. Both ovaries and right tube removed. Uterus appeared normal. Section was removed from the omentum for examination. No drain.

Progress Notes.—The patient reacted well from the

operation. On January 2, 1939 (six days later) she developed a diarrhœa, which was corrected. On January 4, the abdomen became distended with slight fluid wave present. This was relieved by abdominal paracentesis. January 6, the patient was referred for deep x-ray therapy. January 11, abdominal distention became more marked, with pain in the epigastrium.

The patient gradually lost ground, and expired on January 19, 1939, twenty-three days after operation.

Pathologic Report of Specimens Removed

Gross.—One ovary weighed 53 grams and measured 7 x 5 x 4 cm. in size. The surface was somewhat lobulated. On cut section it revealed complete replacement by tumor tissue, which was soft in consistency and grayish red in color. The other ovary weighed 86 grams and measured 8 x 7 x 5 cm. in size. It had the same appearance as the other ovary, except that it exhibited a few areas of hemorrhage.

Normal ovarian tissue could not be seen in either ovary. The fallopian tube measured 8 cm. in length and from 1 to 2 cm. in diameter. The fimbriated extremity was patent. The wall was somewhat thickened.

Microscopic.—The ovaries were completely replaced by new-growth tissue. The new-growth tissue consisted of small cells which had little cytoplasm and deep staining nuclei. However, these cells varied considerably in size and staining. In general, they were polyhedral in shape but many of them were round. A number of them contained mitotic figures. There was very little stroma. Vascularity was marked and consisted of blood spaces to a great extent. In some places there was a slight tendency to long tubular gland formation. The tumor tissue had infiltrated the wall of the fallopian tube.

Diagnosis.—Bilateral small cell carcinoma of ovaries.

Pathologic Examination of Post-mortem Material

Microscopic.—The liver parenchyma exhibited a small amount of fatty degeneration of the cord cells about the central veins, otherwise there was no pathology within the substance of the liver. The capsule, however, was infiltrated with a large amount of tumor tissue. This tumor tissue consisted of deep staining cells with little cytoplasm and very little stroma. The mass was highly vascularized with blood spaces. The tumor cells, although fairly small, varied greatly in size and staining; in general, they were somewhat larger than a small leukocyte. Among them were a large number of mitotic figures; there was a slight tendency to be arranged in cords. This tumor tissue was identical with that which was seen in the primary of the ovaries.

The pancreas was infiltrated with large amount of tumor tissue which was present in the capsule surrounding adipose tissue and connective tissue trabeculæ.

The spleen was rather diffusely infiltrated with a small amount of tumor tissue infiltrating in the pyramids, the cortical tissue not being involved.

The adrenals contained a small amount of tumor tissue in their capsules but none in the substance of the tissue.

The myometrium was infiltrated with a large amount of tumor tissue.

Other than the above described, there were no abnormalities within any of the organs.

Pathologic Diagnosis.—Laparotomy with bilateral oöphorectomy for small round celled carcinoma of ovaries.

Metastasis of above tumor to uterus, peritoneum, spleen, liver, pancreas and adrenals.

Comment

Ewing states that, in the class of solid carcinoma, may be conveniently grouped, all the tumors of large or small aveolar or medullary structure which are not connected with the cystic-adenocarcinomas and which do not exhibit the specific structure of Krukenberg's tumor nor of carcinoma folliculoides. The alveolar and medullary carcinomas produce, as a rule, solid tumors maintaining the form of the ovary in early stages, but eventually becoming irregular and lobulated. In young subjects there occurs a form of solid ovarian carcinoma which is bilateral, of rapid growth, producing widespread local invasions and numerous bulky metastases.

The above description fits this case very well—that the metastasis was extensive, involving the uterus, peritoneum, spleen, liver, pancreas, adrenals, omentum and mesentery.

In comparing the symptoms of this case with those of the unilateral malignant tumors where menstrual irregularities are prominent, it is to be noted that menstrual function in this girl was normal. Possibly this substantiates the theory advanced by M. R. Robinson "that tumors may and do assume the function of the organ from which they spring."

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Varicose Veins

Surgical Treatment of 100 Cases Analyzed*

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■ The treatment of varicose veins has undergone a series of important changes within the past twenty years. The old vein stripping operation of a previous generation of surgeons gave way to the injection of sclerosing solutions. The next step was the ligation of the large saphenous vein at its junction with the femoral vein. This procedure was advocated by DeTakatz because he noted that the injection method frequently resulted in failure to produce a permanent cure. The reasons for this failure were the recanalization of sclerosed veins or the dilatation of previously existing collaterals.

Reports in the literature indicate that the combined high ligation-injection method of treatment has been successful for the type of case with a positive Trendelenburg test. Nevertheless, failures are also noted.

How to turn these failures into cures is the problem facing venologists today. By constant critical examination of clinic material further refinements in diagnostic methods and improvement in technic are being developed. The results are gradual improvement in the percentage of patients permanently cured.

As an aid to such improvements and refinements, the present critical analysis of one hundred unselected cases seen in the Grace Hospital Varicose Vein Clinic are presented.

Complete Examinations Essential

The first and most important step preliminary to treatment of varicosed veins is to determine whether the patient is a fit candidate for such treatment. The importance of this "screening" process cannot be over-emphasized. The old Latin adage "nil nisi bonum," should be especially applied to this type of case. Great and irreparable harm may be done to a patient's lower extremities by an ill-advised vein ligation.

In our series of one hundred cases, seven per cent were rejected for any form of vein treatment. Three of these had cardiac failure, two had syphilis and one each had asthma and hyperthyroidism.

TABLE I. CAUSES FOR REJECTION FOR LIGATION

Arteriosclerosis (Unsatisfactory Histamine Reaction)	7
Deep Venous Obstruction (Unsatisfactory Perthes Test)	7
Cardiac Failure	3
Syphilis	2
Senility	2
Asthma	1
Reynaud's Disease	1
Hyperthyroidism	1
Acute Phlebitis	1
Lymphatic Obstruction	1
Total	26

All but seven of these patients had some other more conservative treatment.

Table I graphically pictures the contra-indications for ligations. As will be seen the arteriosclerotics and those with deep venous obstruction account for more than half of the rejections. This demonstrates the importance of determining the status of the arterial and also the deep venous circulations. The histamine and the Perthes tests are valuable aids in this determination. The rest of the cases emphasize the value of careful and complete physical examinations in all vein cases.

Three tests are indispensable in the selection of patients for varicose vein treatment. These are the Trendelenburg test, the Perthes test and the Histamine test. In our hands we have found the modification of the Trendelenburg test by the use of multiple tourniquets, to be most valuable in locating the level of "blow-outs" in the greater saphenous vein. Many failures in the ligation treatment can be traced to an over-looked "blow-out."

A glance at Table II shows that twenty-one per cent, or one patient out of five, has a Trendelenburg double test. This means that one-fifth of our cases had a "blow-out" below the saphenofemoral junction in addition to incompetent valves at this junction.

The Perthes test is very necessary to determine the patency of the deep venous system. A patient with an unsatisfactory Perthes test should not be

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treated by ligation or injection. In our series fourteen persons were rejected for treatment because this test indicated a disturbance with the deep circulation (Table II).

TABLE II. SUMMARY OF TESTS

TRENDELENBURG		
Positive	Double	Negative
96	36	37
(58%)	(21%)	(21%)

HISTAMINE	
No. Patients Tested	27
No. Satisfactory	50
No. Unsatisfactory	10

RATIO
5:1

PERTHES
Satisfactory
155 or 91.8%
Unsatisfactory
14 or 8.2%

The histamine test is useful as an indication of arteriolar disease in the lower extremity. An unsatisfactory histamine reaction, as indicated by a lack of wheal formation and local erythema, should not of itself be a cause for rejection. But it does indicate that further study of the state of the arteries should be made. It should be remembered that the test is of little value in the presence of edema. Our work at Grace Hospital suggests that the histamine test closely parallels in its results such other tests for arteriolar disease as the saline disappearance test and skin temperature determinations. Hence, since the histamine test is much easier to apply, it is used routinely.

Many Complications Seen

We found in our series of one hundred cases that twenty-nine different diseases were encountered as complications. Some patients had two or more of these complications. For example, many of the older diabetics also had arteriosclerosis and hypertension.

TABLE III. GROUPING OF COMPLICATING DISEASES

I. FOOT AILMENT GROUP
(Pes Planus and Halux Valgus)
23%

II. ENDOCRINE GROUP
(Thyroid, Diabetics, Obesity)
19%

III. CARDIO-VASCULAR-RENAL GROUP
(Cardiacs, Hypertensives, Arteriosclerosis, Nephritics)
38%

In Table III we see that the majority of the complications encountered fall into three large groups. The cardiovascular-renal group leads with thirty-eight cases. Varicose veins are further evidence of a breakdown in the vascular system.

Foot ailments, especially pes planus, are associated with varicose veins in our series to the extent of twenty-three per cent. A poor blood supply to the feet certainly has a direct bearing on weak musculature, the cause of many cases of flat feet.

The endocrine group, found in nineteen cases, constitute predisposing causes for a varicose habitus.

Combined Treatment Satisfactory

Anyone who critically examines the problem of varicose veins will soon realize that the crux of the problem is venous stagnation produced by back-flow of blood through the saphenous system. To remedy this defect the surgeon attempts to interrupt this back-flow by some mechanical means.

Results achieved by combining the high ligation operation with the injection of sclerosing solutions have proven very satisfactory in interrupting this reverse flow in cases with a Trendelenburg positive. But, as indicated in Table II, more than a fifth of the cases seen have blow-outs in the lower thigh or upper leg. When the high ligation operation is done in these cases the back-flow is not adequately checked. Therefore, another operation must be done at the site of the "blow-out."

At present we find that modern veno-therapy combines one or more ligations of the saphenous vein with the injection of the veins in the leg.

TABLE IV.

Total No. Ligations	No. of Patients Ligated	High Ligations Only	High and Mid Ligations
100	74	64	11
High and Low Ligations	**Mid Thigh Ligations**	**Ligations Below the Knee**	**Small Saphenous**
10	2	8	5

Of one hundred operations on seventy-four patients, as shown in Table IV, twenty-one per cent had multiple ligations, that is, in addition to the operation at the sapheno-femoral junction, it was found necessary in eleven instances to tie off the

saphenous in mid-thigh while in ten cases ligation was done below the knee. In another ten cases it was considered that ligation below the knee (eight cases) or in mid thigh (two cases) would suffice. In these last ten cases the Trendelenburg test was single (negative) and the ligation was done at the point of blow-out. There being no positive Trendelenburg test it was thought to be illogical to do a high ligation.

stances it was definitely established that the patients had "blow-outs" in the region of the knee. Hence, it must be concluded that either these "blow-outs" were overlooked or that they occurred after the original examination.

Perhaps thirty per cent of our series was examined by the original Trendelenburg test, i.e., with a single tourniquet. With this technic it would be very easy to overlook the smaller "blow-

TABLE V. PER CENT OF RECURRENCE OF VEINS

	Following Total Ligations	Following High Ligations	Following Mid Thigh Ligations	Following Low Ligations	Following Multiple Ligations
No.	100	64	2	13	21
Per Cent	11%	16.7%	0%	15.3%	4%

On this latter point it is debatable whether a high ligation ought not to be done prophylactically in view of the evident varicose habitus and the known fact that the majority of varicose vein cases eventually show patent valves in the region of the sapheno-femoral junction. However, if the surgeon understands that high ligation may eventually be necessary, the latter operation may be deferred until there is a definite positive indication for it. Such cases should be decided on their individual merits.

Eighty-nine Per Cent Success

It is interesting to note that in our series five ligations of the small saphenous vein were performed. This is a larger percentage than most observers report. However, we find that this percentage is being maintained in our next series of cases. The important point to be considered is that the small saphenous vein may be involved independently of the large saphenous and that in every case showing varicosities on the dorsum of the leg special care must be used to exclude the small saphenous vein. When that vein is involved, ligation in the popliteal area is necessary to effect a cure. This is especially true if there is a communication with the greater saphenous vein.

Table V shows the results obtained with these 100 ligations. Eight high ligations showed a recurrence of varicosities. Seven of these eight cases had Trendelenburg positive tests, or rather tests that were interpreted as Trendelenburg positive by the examining surgeon. In several in-

outs." With the multiple tourniquet test this error in diagnosis is not so likely to occur.

Very small "blow-outs" can be overlooked and later dilate if the valves in the communicating vein were at first only partially patent and later become completely incompetent.

A third fault may lie in not ligating all the collateral veins in the region of the fossa ovalis. In that event these collaterals would act as bi-passes and become varicosed in their own right. This is the primary reason for ligation of all branches in this area. In our earliest cases these branches were not ligated.

Only one recurrence was noted where the patient had multiple ligations. This is an extremely small percentage of recurrences in this type of case because patients with multiple "blow-outs" are prone to develop other patent communicating branches. They are never satisfactory subjects for varicose vein treatment because of this propensity.

The surprising fact is not that we had two recurrences following low ligations but that there were not more of them. This speaks well for the judgment of the surgeon who selected these cases.

It would be wrong to conclude that because a patient has a return of some varicose veins that the treatment has been a failure. In fact in our series only six patients showed a return of symptoms because of recurrence of varicosities.

Table V would be misleading if it was assumed that mid-thigh ligation was preferable to all others because no recurrences were noted. It must be remembered that these two cases were carefully selected on the basis of the multiple tourniquet test.

In a small series of cases such as this too much emphasis should not be placed on percentages. However, the margin of difference between the low per cent of recurrence following multiple ligations as compared to the definitely higher percentage following high or low ligations is sufficient to warrant the statement that, generally speaking, whenever low ligation is performed better results will be obtained if high ligation is likewise done.

Vein Injections Needed

Unfortunately, our method of treatment for varicose veins has not advanced to the point where a single operative procedure will bring about a cure. Hence, it is necessary in most cases to follow ligation with the injection of sclerosing solutions into the remaining varicosities.

TABLE VI. VEIN INJECTIONS

Number of cases	Total No. Patients Injected	Total No. Injections Given	Average Number Injections per Patient
100	73	494	6.76

Table VI shows that the average number of injections per patient was approximately seven. The average injection per patient was one cubic centimeter of sclerosing solution. The largest number of injections any patient received was 26. In this case a total of 31 c.c. of solution was used. While we have no figures available as to the number of injections given to non-ligated patients, the author's early experiences with the injection treatment alone indicates that ligation reduces the number of injections needed by approximately two-thirds.

At Grace Hospital we have used three types of sclerosing solutions: (a) sodium morrhuate, (b) sodium morrhuate with quinine alkaloid (formerly known as Moru-Quin) and (c) Monolate. In seventy-one per cent of our injections sodium morrhuate was employed; in nineteen per cent we used Moru-Quin; and in ten per cent Monolate was the solution of choice.

From this experience we are now inclined to favor sodium morrhuate with quinine as giving the most firm sclerosis and the most lasting results.

Of the 494 injections given only one moderately severe reaction was noted. This followed the injection of 3 c.c. of sodium morrhuate. A rather marked venous spasm and periphlebitis resulted. No patients were found to have an idiosyncrasy to any of the solutions used.

Summary and Conclusions

This analysis of one hundred cases of varicose veins leads to the following conclusions:

1. A complete physical examination, including pertinent laboratory work, should be done on every patient prior to the treatment of varicose veins. First, to rule out those patients who have a definite contra-indication for treatment of the varix, and second to discover and clear up complications which might delay the cure of the varices;

2. In the local examination of patients with varicose veins, three tests are valuable, viz.: (a) the multiple tourniquet modification of the Trendelenburg test, (b) the Perthes test, (c) the Histamine test;

3. Failure with the combined ligation-injection method of treatment is principally due to (a) missed "blow-outs" which also need ligation or (b) failure to ligate one or more branches of the great saphenous vein at the sapheno-femoral junction;

4. That care should be used to locate "blow-outs" in the communicating veins is shown by our finding that one out of five cases examined had patent valves in the communicating veins;

5. Varicosities on the dorsum of the leg should lead the surgeon to investigate the small saphenous vein. It may be involved independently of the great saphenous system or there may be a communicating branch between the two which will require ligation;

6. Check-up indicates that of 100 ligations performed, eleven per cent showed a recurrence. But only one recurrence was found among the

cases where multiple ligations were done. This indicates that care must be exercised to locate all "blow-outs" and ligate them. We have found the multiple tourniquet test a most valuable diagnostic aid for this purpose;

7. Vein ligation preliminary to the injection of sclerosing solutions definitely reduces the number of such injections needed;

8. No idiosyncracy to sodium morrhuate was noted in 494 injections. Only one moderately severe reaction was observed. This reaction followed the injection of 3 c.c. of solution. The practice in our clinic now is not to inject more than 2 c.c. of solution at any one time.

Varicose Ulcers

The Newer Methods of Treatment*

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■ Varicose ulcers are usually on the inner surface of the leg, just above the inner malleolus. They are usually single but they may be multiple and at times coalescing, causing an irregular and extensive skin destruction which may surround the entire leg. It is the most common type of leg ulcer and one which requires a great deal of time and patience to cure, especially when accompanied by severe complications. Very large ulcers of long standing can be cured by ambulatory treatment now, that previously required skin grafting even after a long course of treatment.

Treatments

When ulcers are badly infected, which is the rule rather than the exception, this condition is treated first to give relief from pain. This is done by placing sulfanilamide powder directly on the ulcerated and infected area. Directly over this is placed a modified Unna boot. The purpose of the boot is to give support for the collapse of the varicosities and to keep the sulfanilamide powder in place.

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In severely infected ulcers having a great amount of foul odor, it is only necessary to repeat these applications on the average of once each week. After the first few treatments the ulcer craters are not only free from the foul discharge but a healthy adherent crust usually has

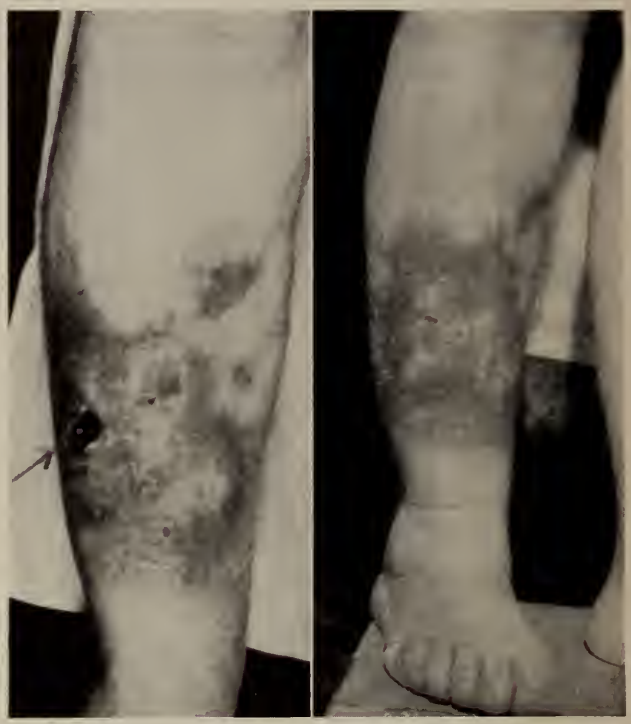


Fig. 1. (left) Varicose ulcer two months after high and low ligations and a series of iontophoresis treatments. (right) The same patient one month after using sulfanilamide powder and boot treatments.

formed. Under this adherent crust the tissue appears healthy with a tendency to normal healing from the bottom. The patient is grateful, particularly for the relief of pain from which a great many suffer. Most patients report that the pain subsides by the time the boot is applied and relief from the pain lasts until the next treatment. This therapy seems to be just as effective when there is mixed infection as when the culture is purely of streptococcic organisms.

A number of drugs and methods of treatment have been used in a series of ulcer cases with rather slow results. Among these may be enumerated the following: gentian violet, brilliant green, azochloramid solutions, cod liver oil ointment, urea solutions and powder, allantoin ointment, adhesive strapping, injections of autogenous blood around and under the ulcer, ultra violet light exposure and iontophoresis with acetyl-beta-methylchlorine chloride. Next to the sulfanilamide powder and modified Unna boot

treatments, the application of urea powder directly to the ulcer with the same type of boot seems to be more advantageous than any other methods in clearing the infections and promoting healing. The urea powder smarts upon application. It clears the infection more slowly than the sulfanilamide powder and leaves a more tender, raw appearing surface which tends to bleed easily.



Fig. 2. Extensive varicose ulcers cleared of infection and healing three weeks after sulfanilamide powder and boot treatments.

The quick relief from pain and infection make it possible to perform the necessary ligations early in the course of treatment.

At times the ligation wounds heal slowly and weakly to the extent of re-opening when the sutures are removed after six to eight days. Sulfanilamide powder placed in these open wounds tends to make them heal more quickly when no infection can be demonstrated in the wound. There seems to be a stimulating or catalytic effect upon the tissue healing as well as a bacteriostatic action.

Although sulfanilamide powder in a wound checks infection, it should not make for a less aseptic operative technic. Ligation operations should be done in a hospital under conditions found best for all operative procedures. This precaution is carried one step further by applying flexible collodion over the incisional wound after it is closed by a subcuticular dermal or silk worm stitch. This precaution is advisable because dressings are too frequently displaced by clothing rubbing on the legs of an ambulatory patient.

The type of ligation necessary depends entirely upon the points of valve incompetency causing the venous reflux or stagnation. Ligations should be done at all points necessary to control the back flow. A high ligation may control the situation sufficiently but the majority require other ligations in the lower leg and occasionally some additional ones in the thigh. Sclerosing of these ligated segments wherever necessary with 5 per cent sodium morrhuate quinine solution two to three weeks following ligation makes a more satisfactory and permanent cure.



Fig. 3. Varicose ulcer healed after three weeks of sulfanilamide powder and boot treatment.

Building up the general health is done concurrently with the pre-operative treatment when there is a co-existing disease such as anemia, diabetes, syphilis, tuberculosis, avitaminosis et cetera. When severe, these complicated cases cannot always be treated while the patient is ambulatory but are better treated by a combination of the local treatments, general health measures and complete rest in bed.

The aggregate treatment time per patient using the sulfanilamide powder and boot has been cut down to nearly one-half the time required in the series receiving the varied treatments previously used as shown in Table I. Each group contained average cases to compare as fairly as possible. A few of the old cases that had been

treated by various other methods started healing at an accelerated rate when the sulfanilamide powder and boot treatment was started.

Iontophoresis was disappointing in promoting rapid healing for chronic varicose ulcers. It is used to good advantage, however, over the old ulcer area to improve the circulation and strengthen the new formed skin.

Applications tending to dry the ulcer exudate seem to hasten healing more than wet dressings as a general rule and they are more easily worn by the ambulatory patient.

When a large ulcer has been present for several years with extension around the entire leg and there is a dense scarring over a large area, skin grafting is the procedure of choice. The ulcer with the scar tissue is removed and the wound allowed to granulate. Over this a full thickness split skin graft is more apt to take and stand up under the abuse that is so likely to occur about the lower leg region. This, of course, is not ambulatory treatment and will be necessary in very few cases.

TABLE I

	Ulcers patients treated	Ulcers treated	Aggregate weeks treated	Aggregate weeks treatment per patient
Previous cases treated	34	40	241	6
Sulfanilamide boot treatment	21	27	93	3½

TABLE II

Total ulcer cases ligated	Boot only	Ligation only	Boot and Ligations	Miscellaneous treatments
32	12	4	16	21

TABLE III

Sulfanilamide with boot and ligations	Sulfanilamide with boot only	Unna boot autogenous blood injections	Urea powder or solutions
12	9	5	15

Conclusions

1. Most varicose ulcers may be treated with the patient ambulatory.

2. Sulfanilamide powder applied to an ulcer, covered by a modified Unna boot for support, is a valuable adjunct to ligating and sclerosing varicose veins for a more rapid and comfortable varicose ulcer cure.

3. Proper examination to determine patient's general and local treatment requirements is a necessary prerequisite.

4. Early ligation is the best method to prevent ulcer formation. Proper placing in industry of patients with varicose veins diathesis, when possible, would be of some help.

5. Ligate all venous segments to prevent venous backflow.

6. Sclerose with 5 per cent sodium morrhuate quinine solution the ligated venous segments after a lapse of from two to four weeks.

7. Check patients after treatment at three to six month intervals to ascertain their condition.

The Eye

In General Practice*

By Edmond L. Cooper, M.D.
Detroit, Michigan

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Preventive medicine is the aim of all conscientious physicians and the eye specialist strives always toward conservation of vision and the prevention of blindness. He looks to the general practitioner as his greatest ally in carrying out this program, because the patient with an eye injury or an eye ailment very frequently makes his first appeal to the family doctor. This is just as it should be, and to justify his patient's confidence the family doctor should have sufficient knowledge to render proper emergency treatment and to correctly advise the patient. The facts to be presented are so fundamental that every doctor in every field should be familiar with them. Patients have a right to expect intelligent advice along these lines.

Congenital Stenosis of the Nasolacrimal Duct

The first condition I wish to discuss is congenital stenosis of the nasolacrimal duct. It is rather frequent and is usually noticed in the first few weeks after birth. It is due to failure of the duct to open at its lower end. Normally, the duct which develops from a solid cord of cells, becomes patent during the last month of the intra-uterine life. If the development of the duct is not complete at birth the condition soon manifests itself by watering of the eye and a slight muco-purulent discharge. Usually the conjunctive is not inflamed. Sometimes there is some swelling over the region of the lacrimal sac, but usually the only symptom is the lacrimation. The condition is serious only if the lacrimal sac becomes secondarily infected. This will not occur if the treatment instituted is prompt and proper. Usually the condition is self-limited. That is, in a certain number of cases the duct will open of itself, spontaneously. Other cases require gentle but frequent massage over the lacrimal sac. This forces the contents of the sac into the nose by pressure, thus establishing the patency of the duct. All cases should for a few weeks be treated by massage. At the same time a mild antiseptic drop, such as 10 per cent argyrol or 1:1,000 aqueous merthiolate, can be instilled into the eye several times a day to prevent infection. Unfortunately some cases are resistant to the above method, and if after 3 or 4 weeks of treatment the duct is still closed it should be probed. This procedure should be left to the ophthalmologist since considerable skill is required to avoid making false passages with the probe.

Mothers whose babies suffer from congenital atresia of the nasolacrimal duct are usually concerned out of all proportion to the seriousness of the condition. By promptly recognizing it and instituting proper treatment the physician can do much to relieve the anxiety and gain the confidence of the parent. The prognosis is always good yet no promises as to the effect of massage should be made since some cases do require probing.

Foreign Bodies

Of all the types of ocular injuries probably the one most frequently seen in general practice is the foreign body in the eye. It is almost a daily occurence for a patient to have something fly into the eye. Little particles of coal, cinders, dirt, grains of sand, or wings of insects are frequent offenders. In industry bits of metal, emery etc., are frequently found. These may lodge on the surface of the eye and frequently the movement of the lids and the washing effect of the tears is sufficient to dislodge them. When this does not occur they remain in the eye, either under the upper lid or imbedded in the superficial layers of the cornea. When the foreign body lodges under the upper lid the favorite situation for it is in the subtarsal sulcus, a small groove running along the inside of the eyelid, parallel to and just above the lid margin. This is easily seen by everting the lid. Foreign bodies imbedded in the cornea are seen with more difficulty especially if they are small. They can best be found if the eye is examined by oblique illumination in which a beam of light is focused upon the eye with a magnifying lens from a

*Read before the Noon Day Study Club, Detroit, February, 1940.

source about 2 feet distant. By focusing the light directly upon the cornea small foreign bodies are easily seen. Sometimes it is easier to demonstrate opaque foreign bodies in the cornea by throwing a light behind them on the iris, against which they stand out sharply, especially if the iris is of light color. A binocular loupe is an almost indispensable aid in examining the anterior segment of the eye. When a foreign body lodges in an eye the eye usually becomes photophobic, painful, lacrimates, and the conjunctiva becomes injected.

The chief symptom is the pain and most patients will make the diagnosis themselves. The pain is more severe when the foreign body is lodged beneath the upper lid since with every movement of the eye or eyelid it scrapes against the cornea. In such cases the eye feels better when it is held tightly closed. When the foreign body is lodged on the cornea there is hardly any pain at all, only a slight discomfort, except when the eye is closed. Then the lids rub over the foreign body and the pain is more pronounced. Consequently these cases characteristically feel better when the eye is open. Patients with corneal foreign bodies frequently wait until the middle of the night to seek medical aid, even though the foreign body has been present most of the day. This is because the eye is not too painful until the patient tries to sleep; closure of the eyes aggravates the pain and prompts the patient to call his doctor.

Foreign bodies under the upper lid are easily seen when the lid is everted and may be removed with a wet cotton applicator. A dry cotton applicator will remove the foreign body just as well but it may leave little wisps of cotton behind. When the foreign body becomes imbedded in the cornea a local anesthetic should always be used before its removal is attempted. Pontocaine hydrochloride in ½% solution is one of the best for this purpose. It does not deteriorate on standing and it is self-sterilizing. 2% butyn or 1% holocaine may be used although both of these drugs are somewhat irritating to the eye. It is unwise to use cocaine because of the drying effect which it has on the corneal epithelium and because it produces dilation of the pupil. In using pontocaine 2 drops instilled in the eye 1 minute apart are sufficient to produce satisfactory anesthesia. The foreign body should be removed with a wet cotton applicator if possible. When the foreign bodies are more deeply imbedded they must be removed with a spud, an instrument shaped like a small rounded spade being the best for the purpose. They should be had in several sizes since a spud 2 mm. wide used to pick out a foreign body ½ mm. in diameter is a clumsy relic and causes unnecessary damage to the cornea. If no spud is available an ordinary hypodermic needle may be used although care should be exercised not to penetrate the corneal stroma too deeply. The spud is sunk into the cornea just to the edge of the foreign body, slid under, and the fragment lifted out. Very frequently foreign bodies, especially those which are hot when they strike the eye, such as small chips of metal or emery, leaves a dark brown or black ring of stain in the corneal tissues surrounding the point of impact. This stain should be thoroughly removed by scraping with the spud or by means of an ordinary dental burr.

After removal of the foreign body treatment must be directed toward the corneal abrasion. Any break in the corneal epithelium represents a potential entry point for bacteria. The resulting ulcer can be of disasterous consequences, even resulting in the loss of the eye. Even foreign bodies lodged under the upper lid cause some abrasion of the cornea due to the fact that they rub against it every time the eye winks. I make it a practice after removing a foreign body to thoroughly flush the eye with boric acid solution. A small amount of some antiseptic salve such as 1:5000 mercuric bichloride or 1:1000 merthiolate is instilled in the conjunctival sac. The eye is then covered with an eye pad, since the corneal epithelium will heal more rapidly if the eye is kept as quiet as possible. The patient is instructed to keep the pad on for 24 hours and then to remove it and wash the eye three times daily with boric acid solution for several days. It is always important to see the patient at least within two days in order to be sure there is no ulcer developing. Care of any ulcer which does develop should be left to the specialist.

The patient should always be told after a removal of a foreign body that after the anesthetic wears off the feeling as if there were something in the eye will return. If they are not told of this they will often present themselves again in three or four hours complaining that there is still something in the eye. In this connection it is well to remind one that a search should always be made for multiple foreign bodies. An eye in which one foreign body has been found may contain another and it is embarrassing to remove one foreign body from the cornea and then to find another in the superior cul-de-sac several hours later.

I should mention that some foreign bodies, especially in industry, strike the eye with such force they perforate the cornea or sclera and enter the eyeball. Usually these are self-evident and must be given prompt attention by an ophthalmologist. Occasionally, however, a patient presents himself with a history of something striking the eye and the examination fails to reveal anything wrong. The patient may have no discomfort whatever. In such cases, where no foreign body can be found on the cornea or in the cul-de-sac an intra-ocular foreign body must be suspected. The history will help a good deal here. People do not get intra-ocular foreign bodies while walking along a windy street. Operators of emery wheels and polishing wheels very rarely have foreign bodies strike with sufficient force to enter the eye. If, however, the patient was injured while operating a punch press, an electric drill, a grinding machine, or while hammering with steel on steel an intra-ocular foreign body is a good possibility. When any suspicion exists an x-ray should be ordered and the specialist consulted.

Every case of ocular injury or ocular disease should have the vision tested before anything is done. This is very important in any case but is especially so in industrial accidents. This little precaution may save the doctor a great deal of trouble later on. It is important because the patient may present himself with an injury of one eye, let us say corneal foreign body is present, and upon taking his vision it is found to be 20/200 in that eye. Later after the foreign body is removed and the cornea healed the patient may return and claim the treatment he got was so poor that it destroyed his vision. If the doctor is not fortunate enough to have a record showing that the patient had poor vision before he was treated he may find himself "on the spot."

Vision testing is a good habit to get into in every case. It cannot really be said that general physical examination is complete without a test of visual acuity. In patients over 40 years of age, this should include a test of the near vision as well as at 20 feet. The test should not be omitted in children just because they cannot read. An ordinary letter E chart costs only 30 cents at any optical house and most school children are familiar with it since it is the one used in the schools. A visual acuity of 20/20 is considered normal. However, a vision of 20/30 need not be considered abnormal especially in very young or very old people. A vision of 20/40 is definitely subnormal and should be considered sufficient cause for referring the patient for an eye examination. It should be unnecessary to mention that patients who wear glasses should be tested with them on.

Sties

Sties are something that all general physicians are not infrequently called upon to treat. They are usually seen in children although they may occur at any age. The commonest type of stye is the hordeolum exterum, which represents an acute suppurative infection of the glands of Zeis or the hair follicles of the eyelashes. It begins with some edema of the eyelid localized over the affected gland. Sometimes the edema is very marked, especially if the stye is located near the external canthus. After a day or two a well-defined, red, tender nodule appears over which the skin is tense, and the lesion is extremely tender. This soon begins to "point," usually through the skin and eventually ruptures and expels a good deal of free pus.

Patients usually make the diagnosis of a stye themselves. However, the condition must be distinguished from chalazion. This is usually easy to do since a chalazion is a practically painless small round tumor of the

lid which has usually been present for some weeks before the patient presents himself. It represents a chronic infection of a meibomian gland and upon everting the lid can be seen to be pointing toward the conjunctiva. Occasionally a chalazion becomes acutely infected and it is then sometimes hard to distinguish from a stye. The diagnosis can be made by the history, by the situation of the swelling and by the direction of pointing.

If a stye is seen very early before suppuration has begun it may be aborted by removing one or two eyelashes at the apex of the swelling and by frequent hot compresses. More often, however, the effect of heat is to cause the lesion to break down. The stye then becomes softer and begins to point. At this stage it may be incised parallel to the lid margin with a sharp knife. This is at best a very painful procedure, and since most cases seen are children it is a difficult one. It has been found to be better practice to continue the hot compresses until the lesion ruptures spontaneously. Until this occurs the lid margins should be covered with an antiseptic ointment such at White's ointment (mercuric chloride) or mercuric bichloride 1:5000. Once the lesion ruptures the eye should be frequently washed out with boric acid solution to prevent autoinfection.

Sties are frequently a result of eyestrain of one sort or another. Consequently patients with successive sties should be referred for a careful refraction.

Acute Inflammation

There is another problem which not unfrequently presents itself to the general practitioner, a problem of diagnosis rather than treatment. I refer to the differential diagnosis of acute inflammatory disease of the eye: conjunctivitis, iritis, and acute congestive glaucoma. The differentiation of these conditions is so important and so much vision is lost because one is mistaken for another that all physicians should have them well in mind. It is not unusual for an ophthalmologist to have a patient come to him with a history of having had a red and bloodshot eye, with some tearing and very little pain for a week or two. Upon going into the history further it is discovered that the patient visited his family doctor who treated the eye with argyrol and boric acid solution for several days and did not refer the patient until the condition became progressively worse and the vision blurred. The examination reveals an acute iritis or an acute congestive glaucoma instead of the supposed pink eye which the family doctor thought he was treating. Even worse than this is the less common occurrence of a patient suffering from acute congestive glaucoma being treated with atropine because the doctor had arrived at a diagnosis of iritis. Sometimes glaucoma is confused with a neuralgia or a toothache and much valuable time is wasted before the correct diagnosis is made.

Differential Diagnosis of Inflammations

The accompanying table serves to help in the differentiation of these diseases:

	Vision	Injection	Anterior Chamber	Pupil
Conjunctivitis	Normal	Chiefly in cul-de-sac and angles	Normal	Reacts normally
Iritis	May be reduced	Circumcorneal	Normal	Pupillary margins may be bound down. Usually small.
Acute Glaucoma	Always reduced	Generalized, more deeply red—venous	Shallow	Dilated. Does not react well.

In conjunctivitis if there is any formation of mucous or purulent discharge it is formed in the cul-de-sacs and overflows into the lid margins. In iritis, however, any discharge thrown off by the iris is retained in the anterior chamber and the ordinarily clear aqueous fluid becomes cloudy and thus may decrease the vision. Vision is not reduced in simple conjunctivitis. In acute glaucoma the vision is reduced first because the steaminess of the cornea prevents rays of light

from entering the eye in a normal manner and secondly because of the great pressure upon the optic nerve head. The injection in conjunctivitis is limited to the posterior conjunctival vessels. These vessels are movable when the conjunctiva is moved. The greatest redness is seen in the fornices and it becomes less in amount toward the cornea. The color is brick red. In iritis the injection comes from the anterior ciliary vessels, which are immovable when the conjunctiva is moved. The redness is circumcorneal and less toward the cul-de-sacs. It is a lighter red than that seen in conjunctivitis. In glaucoma the injection is due to a venous stasis. In mild attacks the only congestion may be circumcorneal but in the severe forms the entire bulbar conjunctiva and sclera present enlarged and dilated vessels so dense that a uniform dark red color is produced. Some of the injected vessels are movable while others are not.

In conjunctivitis the cornea is perfectly clear as it is also in iritis. In glaucoma, however, it presents a characteristic appearance known as "steamy." The cornea suffers from edema, loses much of its transparency and has the appearance of a piece of glass which has been breathed upon.

The anterior chamber is invariably shallow in acute congestive glaucoma, sometimes so much so that it is difficult to detect any space between the cornea and the iris. The depth of the anterior chamber is normal in both iritis and conjunctivitis. The conditions of the pupil is very helpful in differentiating these diseases. In conjunctivitis it is of normal size and shape and reacts promptly in normal manner. In iritis it may be small and the pupilary margins of the iris will be bound down to the lens so that it does not react. In glaucoma the moderately dilated, irregular and rigid pupil is a characteristic sign.

Strabismus

The family physician is often the one first consulted for advice in the management of the cross-eyed child. It is sad but true that he frequently advocates a waiting policy until the child reaches school age. This deliberate procrastination is nothing short of pernicious for in many cases these children do not receive attention early enough to secure a complete correction of the deformity. Needless to say the treatment of a squint is definitely in the field of the specialist. The role which the family doctor or the pediatrician plays should be solely advisory.

No child is too young to receive some form of treatment, and with the perfection of non-shatterable lenses, the youngest child can wear glasses safely. If care is not instituted early the sight in the squinting eye may be lost. Some parents blame the occurrence of squint on a previous severe illness. This idea is wrong and should be explained to them. Squint is almost always due to a faulty fusion faculty. However, severe illness or fatigue may make manifest a latent squint or exaggerate a previously existing one. Glasses do not always correct a squint and parents should not be told that they will. Exercises or operation may be necessary before the squint is fully corrected. But whether refraction, exercises, operation or a combination of all three are necessary the results will be better if the child is seen early.

Comment

The principal aim of any program of medical training is to produce efficient general practitioners for the service of the community. A program which tends to fill the mind of the practitioner with an encyclopedic though vague knowledge of all subjects rather than a precise knowledge of the common ones is ill-calculated to achieve its object. Of the special subjects, ophthalmology is so advanced, progressive, and vast that it has become more than a full time job.

The foregoing review was not intended to give the impression that the ophthalmologist should be the only one to treat any eye condition; far from that. There are many instances in which the general physician must and should assume the responsibility and he is less apt to have unpleasant experiences if he is reminded in advance of their possibility.

"* * *The federal government, and to a lesser extent other divisions of government, in the last several years has projected itself into medical practice in such manner as to cause all thinking physicians to evaluate anew the relationship of socially minded legislative performers to the field of medical practice. . . . The physicians of Illinois must decide to what extent their societies and publications shall feel free to point out that certain individuals in politics detrimentally effect the cure of the sick. In so doing we will abandon our historic neutrality in politics but the time has come to be for or against candidates for office because of their views or practices affecting our well thought out, effective and time-tried methods of caring for the ill.—From "The Political Doctors," Editorial in the *Illinois Medical Journal,* September, 1940.

Nasal Polyposis

By Neil Bentley, A.B., M.D., F.A.C.S.

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THE MATTER of the relationship of nasal polyps to nasal sinus infections has been given a lot of attention by many authors. It resembles the age old query "which came first the egg or the chicken?"

Certain it is that the presence of nasal polyps in the region of the middle meatus will tend to produce sinus infection. Single polyps have been found where no sinus infection existed, if we are to believe the results of x-ray, transillumination and nasal inspection, including the view with the nasopharyngoscope. However, I have never seen multiple nasal polyps where a sinus infection could not be conclusively demonstrated. Certainly a continuous discharge of pus is irritating and this may cause polyp formation.

However, we see many chronically discharging nasal sinuses where no polyps have arisen, even though the sinuses have discharged for many years. Why? Today I think we have the answer. Nasal polyps usually occur in allergic patients who develop a sinus infection. The larger and more extensive the polyps, the more certain are the sinuses to become involved.

A lot of study has been given to the question of whether the bone is invaded by the polyps or if the bone is first affected and the polyps result from the diseased bone. Most authorities now feel that the changes are primary in the mucous membrane and that the bone changes are secondary. Certainly we do not often see changes in the bone of the maxillary antrum; yet a large percentage of cases of nasalpolyposis do show marked changes in the membrane of the antrum. This view is supported by Hajek, McKenzie, J. Wright.

"S. J. Kelley has made an interesting analysis of 100 cases of bronchial asthma referred from the Department of Allergy to the Department of Otolaryngology of the New York Hospital. A thorough study of these cases based on x-ray studies, nasal inspection and antral lavage, showed 89 per cent of the 100 cases had chronic hyperplastic sinusitis involving one or more of the sinuses. Sixty of the eighty-nine cases with chronic hyperplastic sinusitis presented allergic nasal membranes and twenty-three of these patients were found to have nasal polyps."—*1937 Year Book, Eye, Ear, Nose and Throat,* page 484.

Diagnosis

The diagnosis of the nasal polyp is usually quite easy. It is of greyish soft consistency, looking not unlike a peeled grape. With a cotton tipped applicator, it is freely moveable and feels soft. Many become more fibrous and may then be confused with a turbinate. Many men who have not had special training mistake a bulging turbinate or a septal deformity for a polyp. The careful use of a probe will easily correct any such mistake.

Many polyps begin in the posterior half of the nose and are not visible by anterior rhinoscopy. Here the nasopharyngoscope is invaluable. With this instrument, pus, polyps and polypoid degenerations are clearly detected.

A smear of the nose should always be made for eosinophiles. They are always increased in allergic patients and may run from 10 to 40 per cent, sometimes as high as 80 per cent. Where there is a more active sinus infection there will be a lot of pus cells present, and accordingly a smaller percentages of eosinophiles. A clumping of eosinophiles is particularly significant of an allergic background.

A careful search for an allergic history is very important. Eczema is often encountered. The allergic mucous membrane is pale, swollen, and edematous and pits on pressure by the applicator. There is a history of a lot of sneezing, watery discharge, frequent colds or that their colds last all year.

The symptoms of nasal polyps develop insidiously and often pass unnoticed, being regarded merely as a cold. Nasal obstruction gradually develops, but may be only transient at first. When the polyps are in the upper part of the nose there may be fair breathing. Sneezing becomes frequent, with a sense of stuffiness and often loss of smell. With the gradual increase in the size of the polyps a nasal tone is developed, which may be easily recognized. It may take several years before

the polyps attain great size. They develop so slowly that we often find them growing down into the nasopharynx or extending out into the nares, without the patient being much upset by their presence. While the nasal polyp is very soft they may be packed so tightly into the upper nares as to separate the nasal bones, giving a characteristic broad appearance to the nose.

A single smear of the nasal secretions that is negative for eosinophiles must not rule out an allergic background. Several smears should be made on different days. When a smear does show a positive high percentage of eosinophiles, the patient should then be given the skin tests for allergy, either the scratch or intradermal tests, or both.

The patient should then be separated from those articles to which he is allergic. In foods, articles of clothing, toilet products, this may be comparatively easy. This matter of treatment for allergy is, however, outside the limits of this paper. It cannot be neglected, however, if we are to give satisfactory results to these patients.

I like to have an x-ray of the nasal sinuses made in all these cases of polyposis. Invariably the ray will show involvement of the antra and ethmoids. I like the ray particularly to show up the sphenoids and posterior ethmoids. When polyps are in the nose, I ask for a search for polyps in the antra, ethmoids, and sphenoids.

Polyps are often diagnosed in the antra, where no polyps are found in the nose. Unless there were clinical evidence of sinusitis in the nose, I refuse to operate such sinuses on the x-ray finding. I have never seen any clinical evidence to cause me to regret this policy. I don't feel that the x-ray finding of a polyp in the antrum is dependable where no polyps are seen in the nose with the nasopharyngoscope.

Many of the cases that come to the rhinologist, however, have such large nasal polyps that they completely obstruct the nostrils. X-ray studies, transillumination of the sinuses invariably shows a panusitis involving the antra and ethmoids. Often the sphenoids are involved.

Treatment

Temporizing with these cases is useless. I prefer to do a bilateral Caldwell Luc operation on the antra and ethmoidectomy. Often the middle turbinate is cystic or shows polypoid degeneration. In such cases the anterior half or third of the middle turbinate should be amputated. This bilateral Caldwell Luc and ethmoidectomy can be done at one sitting under local anesthesia, with preliminary barbituric acid ingestion. Since there is some hemorrhage that requires packing, the second side can be done whole you are waiting for the packing to dry up the hemorrhage in the first side.

The entire lining of the antrum is removed. Particular attention must be given to the outer angle and the anterior wall of the antrum is removed as far to the temporal side as is necessary to get at this outer angle. The roof and anterior nasal angle must also be cleaned out thoroughly. Care must be taken to avoid the infraorbital nerve.

The antro-nasal wall under the inferior turbinate is removed and the membrane incised under the attachment of the inferior turbinate and a flap of mucous membrane turned down into the antrum. A vaseline gauze drain is packed down from the nares into the antrum, and the membranous incision under the lip is sutured.

Any intranasal polyps are removed by snare and punch forceps. If the ethmoidal cells are invaded by polyposis, as they usually are, they are cleaned out with punch forceps and currets, care being taken not to fracture the orbital plate. Many times the sphenoid sinus is involved and any necessary treatment is given at the same time.

Usually the middle turbinate is left alone. If it is very cystic or shows polypoid degeneration, the anterior end is removed with scissors and snare. It is not removed, however, until all other surgery is completed. The attachment of the middle turbinate is our safety landmark and no operating should be done above its attachment.

The removal of the polyps and drainage of the nasal sinuses is only the beginning of our treatment of the patient with nasal polyposis. The patient must now be treated from the standpoint of allergy. This has already been mentioned, but a very thorough search and history must be made if you are to find to what things the patient is allergic. House dust is a very common offender, and likewise the dust from the factories that the men might be working in. This would require such a detailed study that I haven't time to enter into it at all fully just now.

The patient with nasal polyposis is told at the beginning that he must be under treatment for three years after the operation. It is then explained to him that this doesn't mean that he is to rent rooms at my office, but that he must be under my observation for that length of time. At first we see him three times a week following the operation, then it drops to once a week, once a month, once every three months, and the latter part of the three year period he will be seen just every six months. Whatever treatment that is necessary for the nasal sinuses must be carried out.

Frequently there will be recurrence of some of the polyps. This is easily understood when we consider that we do not exenterate all of the ethmoid cells.

Polyps are largely water, and during the process of operation they become pricked and deflate like a toy balloon. A few weeks or months later we may find a recurrence of some of these polyps. When they do recur they must be removed. Treatment of the membrane with silver nitrate is a very effective way of keeping down the formation of granulation tissue and polyps. The primary consideration must be given to the removal of the things to which the patient may be allergic and treatment of septic nasal sinuses.

Several men have reported on the use of radium in nasal polyposis which has frequently been followed by disastrous results. There are reports by Eric Watson, Williams and others in the British literature that two cases went on to severe nasal atrophy following the use of radium. Some had severe adhesions. One case reported has a perforation of the hard palate. In another case there was necrosis of the ethmoid and cribiform plate. Personally, I have never used radium or roentgen ray therapy in cases of nasal polyposis. I have seen cases of cataract following the use of roentgen ray. Other cases develop a severe atrophy of the secreting membranes so that a very dry nose results.

Treatment with surgery and a very careful follow-up will result in a satisfactory cure. This treatment must consider removal of all substances to which the patient may be allergic or may require shots to desensitize. If the polyps are small, and the patient is allergic I feel that it is permissable to use anti-allergic treatment and see if this will clear up the polyps without any surgery. This often happens. Where the polyps, however, are of large size and are heavily intrenched in the antra and ethmoids surgery must first be used. We find, however, it better for surgery to be postponed until we are outside of the Hay Fever calendar.

Subacute Bacterial Endocarditis

An Apparent Recovery

By Leslie T. Colvin, M.D.
Detroit, Michigan

Leslie T. Colvin, M.D.
M.D., University of Toronto, Faculty of Medicine, 1923. Attending physician in charge of Cardiology, Grace Hospital, Detroit. Member, Michigan State Medical Society.

■ An exhaustive study of the literature reveals the following facts about subacute bacterial endocarditis, which have seemed to me of importance.

To make certain the diagnosis of this condition, which carries with it such a serious prognosis, four findings are necessary, viz: the evidence of a valvular lesion, persistent fever not otherwise explained, embolic phenomena, and more than one blood culture, positive for a certain organism. There are observers, notably Libman,[10, 11] who feel that there are milder cases possible of recognition, which do not have all these four findings; but to others, including the author, these cases constitute a condition different from that which we recognize as subacute bacterial endocarditis. The German writers seem to me to make this diagnosis very easily with a resultant larger percentage of recoveries. For example, they describe as subacute bacterial endocarditis a case of mastoid disease, which, following operation, had a positive blood culture, a cardiac murmur, and even may have been in heart failure from rheumatic heart disease with embolic phenomena to be explained on the basis of the congestive failure.

It seems to me the only safe diagnosis of the condition rests in finding all four criteria—valvular disease, fever without other obvious cause, embolic phenomena, and positive blood cultures.

The streptococcus viridans, the most common organism found in these cases, occurs in 95 per cent. The blood cultures should be observed for three weeks, as it is not uncommon to have the growth of organisms become evident only after eight to thirteen days. Occasionally other organisms are the causative agents: non-hemolytic streptococcus; the Pfeiffer organism, in which the course is very chronic; the pneumococcus, invariably fatal; and the gonococcus, not invariably fatal.

Sometimes the onset of subacute bacterial endocarditis follows directly respiratory infection or the disturbance of a focus of infection, eg., the extraction of an infected tooth. Thayer[18] of Johns Hopkins, reported thirteen cases out of one hundred following directly tonsillitis, sinusitis or dental extraction.

Usually there is a valvular lesion preceding the onset of subacute bacterial endocarditis—either rheumatic or congenital in etiology and possibly rarely luetic. Brink and Smith,[2] of the Mayo Clinic, reported rheumatic heart disease with a history of acute rheumatic fever in 51 per cent, rheumatic heart disease without history in 17 per cent—no valvulitis in 32 per cent. Thayer reported, similarly, 70 per cent with a preceding valvular lesion—6 per cent congenital.

Differential Diagnosis

The differential diagnosis demands the separation of the condition from rheumatic endocarditis. This latter may be very fulminating in young individuals and cause death. It is differentiated by the history of preceding attacks, the more severe joint symptoms which may be present, the presence of rheumatic nodules, the finding of pericarditis occurring in 60 per cent and very rarely in subacute bacterial endocarditis, the absence of true embolic phenomena, and, finally, the negative blood cultures. Seventy-four per cent of cases of subacute bacterial endocarditis have embolic phenomena somewhere. Sixty-one to 74 per cent have albuminuria. Fifty-three per cent have a palpable spleen. Forty-four per cent have clubbing, according to Thayer.

The duration of the disease is from weeks to years—usually when definitely established, one year or less. Thayer, out of 100 cases, had 8 last more than one year. Brink and Smith had no cases out of 37 live longer than one year.

There is incontestable pathological evidence that healing occurs in the vegetations of subacute bacterial endocarditis. Louis Hamman[6, 7] reported many cases in which vegetations were almost healed and occasionally completely healed. Thayer speaks of longstanding partial organization of the vegetations, scarring, calcification and partial healing. Soma Weiss[19] reported lesions typical of subacute bacterial endocarditis entirely healed, in patients without symptoms and in whom death occurred from some other cause, and asks himself—are these cured cases of subacute bacterial endocarditis?

Prognosis

From the evidence in the preceding paragraph, the problem of prognosis follows. Many authors have published series of subacute bacterial endocarditis cases. The prognosis varies from Willius'[4] statement that the prognosis is hopeless and that cases of reported recovery did not have the criteria for diagnosis, and that of Paul White and Kurtz[9] that the disease is almost 100 per cent fatal, to the epidemic of positive blood cultures reported from Toronto by Graham, Oille and Detweiler[16] in which there was a high percentage of recoveries. E. Libman is of the opinion that there are many cases, usually unrecognized, that recover. Several have reported the occasional case with recovery.[1,3,5,8,12,13,14,15,17] Perrin H. Long,[12] in his recent monograph on the use of sulphanilamide, reported, following the administration of this drug, a hopeful percentage of recoveries in definitely established cases of streptococcus viridans subacute bacterial endocarditis. Paul White reported recently some encouraging results from the use of sulphapyridine and heparin.

The case which I wish to report has, I believe, the proper criteria for certain diagnosis and has now had a normal temperature for more than two years with normal laboratory findings and a gain of many pounds weight, as well as a return to normal health and activity.

A young married woman of thirty-two years, had a history of pericarditis at the age of thirteen years, at which time she was in bed for two months. She had always protected herself from unusual physical effort, although in recent years she had been more active, playing badminton and tennis. Her usual weight had been 112 to 115 pounds. It was known that she had a systolic apical murmur.

Toward the end of August, 1937, she complained

of weakness and easy fatigue. In September, she was found to have low grade fever, reaching on occasion 101 degrees—with normal readings some days. Her brother, an interne in one of the local general hospitals, admitted her to this hospital September 30, 1937, for observation. She was complaining of headache and precordial pain, radiating to the left arm, of five days' duration. The only positive finding on physical examination was an apical systolic murmur. X-ray examination of the chest was normal. A urinalysis showed an occasional fine granular cast, but was otherwise negative. The hemoglobin was 75 per cent, the red blood count 4,140,000, white blood count 11,000, with 19 per cent non filamented cells. The Widal was negative, as also the test for bacillus abortus. An intradermal tuberculin test was negative. She was discharged October 2, 1937, and advised to take hematinnic plastules. By mid-October the temperature had increased, now reaching 103 degrees, the patient was weaker—practically confined to bed—and there were appearing painful, discolored, ephemeral nodules of the fingers, toes, palms, and one wrist. The nodules upon fading left pigmented areas.

November 2, 1937, I saw the patient and made a tentative diagnosis of subacute bacterial endocarditis. The patient was thin, pale and sallow. There was no clubbing. The heart was not enlarged. The rhythm was regular, the pulmonic second sound increased, and a systolic blowing murmur was heard at the apex. The spleen was not felt. There was no evidence of congestive heart failure. The lungs were clear. There were typical Osler's nodes present.

November 3 the hemoglobin was 67 per cent, the red blood count 3,310,000, and the white blood count 7,200 with 76 per cent leukocytes—10 per cent non-filamented.

A blood culture was reported in 72 hours as showing streptococcus viridans. She was asked to continue the iron therapy and to institute the use of sulphanilamide.

November 6 a devitalized tooth was extracted. The culture of the root showed staphylococcus and a few short chain streptococcus. A blood culture from another laboratory showed positive for streptococcus viridans. A vaccine was made from the dental culture. The white blood count was 23.000.

During the succeeding month the fever increased, reaching 104 degrees. There were more nodules and some definite petechiae. The patient was given a few doses of the autogenous dental culture vaccine.

December 3 the patient was admitted to the Wyandotte General Hospital, weighing 90 pounds and with a temperature of 104 degrees. The physical findings had not changed. There was still no clubbing and the spleen was not palpable. The hemoglobin was 65 per cent, the red blood count was 3,130,000, the white blood count 15,700 with 80 per cent leukocytes. The urine showed two plus albumin, but no blood. Sulphanilamide was stopped on admission.

December 5 the temperature reached only 102.5 degrees.

December 6 the temperature reached 99 degrees. She had an indirect blood transfusion. The temperature remained normal from this date.

December 7 the hemoglobin was 70 per cent, the red blood count 4,120,000, and the white blood count 10,100.

December 14 the hemoglobin was 70 per cent, the red blood count 3,730,000, and the white blood count 9,100.

December 15 a second indirect blood transfusion was given. She was discharged December 17, 1937, and advised to take sodium cacodylate intravenously—at first every other day and later twice a week.

December 31 she was readmitted after two weeks, during which there was definite improvement, and there was a gain of seven pounds. The patient was afebrile. The hemoglobin was 75 per cent, the red blood count 3,800,000, and the white blood count 10,300. She was given an indirect blood transfusion and discharged January 1, 1938.

Following discharge from the hospital, for a month or two there was an occasional painful nodule, but, except during a short attack of erysipelas, no fever whatever. There was a continual gain in weight and strength and loss of anemia. The blood cultures have become negative. The cardiac findings have remained unchanged. The patient is now in normal health, weighs 124 pounds, and is carrying on a normal life, though with somewhat restricted activities.

Until recently it has been the general feeling that those few recoveries which have been reported were entirely spontaneous, and that no treatment was of avail. It is, however, a temptation to ascribe the recovery of my case to the use of sulphanilamide, inasmuch as the temperature became normal and remained so following its use and before any other treatment was instituted.

I should like to express my indebtedness in reporting this case to Dr. E. W. Bauer, under whose care this patient was originally, and to Dr. T. V. Wharton, who looked after her during the greater part of her illness.

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Chorionepithelioma of the Uterus

With Perforation and Intra-Abdominal Hemorrhage

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■ Chorionepithelioma was first recognized as an entity by Sanger in 1888. Since that time many scientific papers and case reports have contributed to our knowledge of this tumor. However, chorionepithelioma of the uterus with perforation and intra-abdominal hemorrhage has been recorded in only a few instances, and it is the purpose of this paper to report a case of this type.

Case Report

The patient, a white woman aged forty, was seen as an emergency case on February 15, 1938. Several hours before admission she suddenly experienced an excruciating pain in the lower abdomen and fainted. After she regained consciousness, the abdominal pain gradually became generalized and was also referred to both shoulders.

The past history was essentially negative, except for the gynecologic history. Menstruation had always been irregular. She delivered a normal full term infant 2 years and 7 months prior to her present illness. Seven months subsequent to her delivery she failed to menstruate at the expected time. One week later she had very profuse uterine bleeding, requiring hospitalization and 4 transfusions. At that time time she was curetted. Following this the menses continued to be irregular, occurring at intervals of 2-3 months. During the month prior to the present illness she had spotting



Fig. 1. On the fundal portion of the uterus there are three bluish-red nodules of tumor tissue. One of the nodules had ruptured pre-operatively, producing intra-abdominal hemorrhage.

of blood each day and recurring paroxysms of subacute pain in the lower abdomen.

When first seen the patient was well oriented and responded promptly to questions. The mucus membranes presented a fairly good color. The pulse was of good quality and the blood pressure was 112/68.

The lungs were clear to percussion and auscultation.

The abdomen was slightly rounded and moved well on deep inspiration. On palpation there was generalized abdominal tenderness, although no muscle spasm was elicited. There was definite dullness in each flank on percussion. Liver, kidneys, and spleen were not palpable.

Pelvic examination revealed normal external genitalia. The Bartholin glands were not palpable. The vaginal mucosa was normal. The cervix was in mid-position, lacerated, and firm in consistency. There was a small amount of old blood coming from the cervical canal. The uterus was in mid-position, slightly larger than normal but no definite softening was noted. Marked tenderness was elicited in palpating over the fundal portion of the uterus. The adnexæ were not palpable, and the cul-de-sac was normal.

Although there was neither lowering of blood pressure nor evidence of shock, the history and physical examination suggested the occurrence of intra-abdominal bleeding. A pre-operative diagnosis of ruptured ectopic pregnancy was made. The patient was prepared for operation.

On opening the abdomen there was free blood in the peritoneal cavity. The uterus, which was slightly enlarged and definitely softened, presented a very unusual

and interesting finding. On the anterior surface and near the left cornu there were three bluish nodules, each measuring about 1.5 cm. in diameter (Fig. 1). The peritoneum over one of these nodules had ruptured and bright red blood was coming from the point of rupture. The adnexa presented nothing remarkable except that the ovaries were smaller than normal. No recent corpus luteum was noted.

It was apparent that the diagnosis of ruptured ectopic pregnancy was incorrect. In view of the close proximity of the lesion to the left cornu, the possibility of an interstitial pregnancy was considered. Because of the extent of the lesion and the patient's age, it was decided to do a hysterectomy. The uterus together with the cervix was removed. The adnexæ, which were normal in appearance, were left *in situ*. We were not aware of the exact nature of the lesion until the uterus was opened. It was then apparent that this was an intramural chorionepithelioma.

The fundal portion of the uterus was found to be greatly distorted by a large intramural mass measuring 7 cm. in diameter, and composed of reddish-brown, soft, friable, hemorrhagic tissue. The border of the tissue was irregular but demarcated from the muscle. The mucosa, which measured .4 cm. in thickness, appeared to be free from the tumor.

The microscopic description of the tumor was as follows: "Section through many areas of the main tumor and the small nodules noted on the serosal surface shows them composed mainly of hemorrhage, fibrin, and necrotic debris. At the base of the tumor and also at the periphery of the nodules there are regular masses of epithelial cells, which are similar to the syncytial cells of the chorionic villi. There is a definite neoplastic tendency with infiltration of the adjacent musculature in all directions. The cells show extreme anaplasia and seem to be eroding into the blood vessels in some areas."

The day following operation a Friedman test was done on the urine and was reported positive. X-ray of the chest showed multiple metastatic nodules in both lungs, and the patient received deep x-ray therapy to the chest. The convalescence was satisfactory and the patient was discharged on the 18th postoperative day. Following her hospitalization she gained strength and felt quite well. Quantitative Friedman test was done one month after operation by Dr. Herbert Evans of Stanford University, who reported 45,000 mouse units of prolan per liter of urine. On April 16, two months after operation, pelvic examination revealed a nodular mass in the left side of the pelvis and along the course of the iliac vessels. She then received a course of deep x-ray therapy to the pelvis. At this time progress plates of the chest showed that the metastatic nodules in the right lung were more numerous and more advanced than they were prior to the deep x-ray therapy to the chest.

The patient was readmitted to the hospital five months after operation because of severe headaches, increasing weakness, and loss of weight. Three days later she became stuporous and developed a hemiplegia, indicating a metastatic lesion in the brain. Her condition gradually became more critical and she expired 6 months after operation.

Autopsy showed metastatic nodules in the lungs, liver, small intestine, and brain. On microscopic examination the ovaries showed a luteal cell reaction around many of the follicles.

Discussion

Chorionepithelioma may develop after full term pregnancy, molar pregnancy, abortion, ectopic pregnancy, and may arise in a teratoma of either sex. It is well known that in normal pregnancy the cells of the chorion invade the maternal tissues but there is soon established an equilibrium between the invasive cells and the maternal organism. In the literature it is implied that the difference between a benign and a malignant invasion by the chorionic cells may be one of degree and not dependent upon any cellular change. Theoretically a number of possibilities suggest themselves. The invasive properties of the cells may be increased, the defensive mechanism of the maternal organism may be reduced, or both of these conditions may prevail. Kleine[6] is of the opinion that there is a defective fibrinoid formation in the host. Kraus and Ishiwara[6] have carried out serologic studies, substantiated by Graff and Frankl, which demonstrate that the maternal defense to the invasion of the chorionic cells depends upon the formation of cytolysins. Frankl[6] has reported an absence of this immunizing protection in individuals with chorionepithelioma.

In the case which we have reported the question arises as to whether the development of the chorionepithelioma dates from what was presumably an abortion 2 years previously or whether it may have had a more recent origin. Many cases are reported with a long period of latency between the preceding pregnancy and the first manifestations of the tumor. Ladreyt and Drugman[6] reported a patient 64 years of age, in whom the chorionepithelioma developed nineteen years after the last pregnancy. However, in the opinion of Frankl[6] a long period of latency is questionable, when one considers how easily an abortion may be overlooked.

Diagnosis

From a review of the cases of perforating chorionepithelioma of the uterus, the usual preoperative diagnosis has been ruptured ectopic

pregnancy. The reason for this is in part explained by the fact that ruptured ectopic pregnancy is a frequent cause of sudden intra-abdominal hemorrhage in women of the reproductive age. On the contrary chorionepithelioma is a rare tumor and occurs once in 23,000 pregnancies according to Hinselman.[6]

It should be emphasized that it is the quantitative increase in the amount of gonadotropic hormone excreted in the urine which is of diagnostic importance, and that any quantitative increase must be evaluated along with the history and physical examination.

There is a great difference of opinion as to the value of the diagnostic curettage.

Treatment

In the opinion of Phaneuf[13] the cure of chorionepithelioma depends upon an early pan-hysterectomy, the removal of adnexa, and the glandular structures, and that the operation should be preceded by radium and followed by deep x-ray therapy. Schumann and Voegelin[15] believe that it is advisable to preserve the ovaries in the hope that regularly recurring cycle of oestrin and progestin formation may facilitate the regression and absorption of the aberrant fetal elements. Heuck and Hanser[8] are of the opinion that it is not necessary to extirpate lutein cysts, while Mathieu and Palmer[11] state that the removal of the ovaries is not indicated if they appear normal.

In Frankl's clinic[6] the treatment of chorionepithelioma has been operation followed by radiation therapy, and an extensive extirpation of the uterus is considered unnecessary. Hitschmann[6] advises against operation where metastases are present. Findley[5] favors removal of the primary growth even in the presence of metastases, since in some instances the metastatic growths have disappeared spontaneously. Hitschmann and Christofolette[18] and Szathmary[17] both stress the dangers of operative trauma in view of the fact that fatal non-operated cases had fewer metastases than those subjected to hysterectomy. Davis[4] indicates that radiation should be considered in every case. Mathieu[11] advocates hysterectomy as soon as the diagnosis is made, in patients near the menopause or where the patient has a sufficient number of living children. In other patients he advises D and C, and repeated AZ tests to determine if there is living chorionic tissue present. If the AZ test is persistently positive, and if the uterus has been completely emptied and no intervening pregnancy has taken place, then a hysterectomy should be done.

Summary

1. A case of perforating chorionepithelioma with intra-abdominal hemorrhage is reported.

2. This syndrome is usually diagnosed preoperatively as ruptured ectopic pregnancy.

3. The quantitative AZ test is the most valuable single aid in the diagnosis of chorionepithelioma, and must be evaluated together with the history and physical examination.

4. The diagnostic curettage is of only limited value and negative findings prove nothing.

5. The treatment of chorionepithelioma has been operative removal of the affected organs, or radiation therapy, or a combination of these two forms of therapy.

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GOVERNMENT MEDICINE AT WORK

I visited the State of New Mexico. I went to Hot Springs. I saw a hospital that cost $2,500,000 accommodating ninety crippled children, built out of Government money. Yet there was not a single orthopedic surgeon in the State of New Mexico to take care of those crippled children. So they import an orthopedic surgeon two mornings a week from El Paso, Texas, on a salary larger than that paid to the Governor of New Mexico in order to take care of ninety children in a hospital in a town of three or four hundred people in the State of New Mexico. That is Government medicine.—Morris Fishbein, M.D., *Illinois Medical Journal*, October, 1941.

Confusing Tuberculosis*

By Charles E. Black, M.D.
Lansing, Michigan

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■ Of the interesting and difficult medical and surgical cases arbitrarily selected for discussion at our Clinical Pathological Conferences, tuberculosis has been especially prominent. A correlation of the clinical pathological findings reveals that tuberculosis is still an important problem to the clinician because of its frequent occurrence and because of its ability to mask other diseases, thus making diagnosis difficult. Warthin emphasized that syphilis is the master of disguise and that if one knew all the manifestations of syphilis he knew 90% of all medicine and if he knew tuberculosis in addition, he knew 95% of it. Since syphilis in its advanced stages is now infrequently seen in general practice, tuberculosis has ascended the rank of elusive syphilis.

Interesting Autopsy Findings

The frequent finding of advanced tuberculosis at autopsy with its complex clinical manifestations is amazing. As an illustration, we found eighteen cases of advanced tuberculosis from a group of 140 autopsies, about one-third of which were baffling diagnostic problems.

One case that closely simulated a monocytic leukemia turned out to be advanced pulmonary tuberculosis. Two cases that were thought to be brain abscesses following an upper respiratory infection, were pulmonary tuberculosis with tuberculous abscesses of the brain. Another which appeared to be a rare lipoid disturbance was advanced pulmonary tuberculosis with generalized miliary lesions. Tubercle bacilli were demonstrated.

It should be emphasized that tuberculosis should always be considered carefully in differential diagnosis, especially, when the clinician is groping for a diagnosis.

A search for tuberculosis should include: a careful history and physical examination including weight, temperature, pulse rate, roentgenological examination of the chest; tuberculin skin tests; and examination of the sputum and other body discharges. In cases where tuberculosis is suspected the test should be repeated if the first examination was negative. Examination of the sputum should include a stained smear, culture, and guinea pig inoculation.

*From the department of pathology of the Edward W. Sparrow and Saint Lawrence Hospitals, and the Ingham County Sanatorium.

FOOTBALL INJURIES

Stringent rules of play, improved equipment and rigid systems of physical conditioning serve to safeguard today's football player against injury. These safety measures may be nullified by inadequate medical supervision during play or practice. It takes a strong-willed coach to resist sending in his injured star passer when dear Alma M. is a touchdown behind in the last two minutes, the crowd is yelling, the clock is ticking, and next year's contract depends on winning the close contest. Too often, the boy does go in, to be injured perhaps for life. It should not be left to the coach to say whether this boy plays or not. It is not fair to him or the player. Final authority as to who should or should not play at any given moment should rest with the team physician. Only he can be in position to judge the player's physical condition. Only he has the right to assume final responsibility for the physical welfare of the players.

Most organized games now have a physician in attendance. Rules of the El Paso school system forbid a scheduled game beginning until the team physician is on the field. Yet, what real good is his presence unless he has absolute veto over the desires of the coach to send into the fray players who may be injured? What may appear to be a trivial injury to an anxious, excited coach may well be a matter of serious consequence to the player and his physician. Study of the problem of football injuries had led to conclusions and findings which, applied thoroughly, have greatly lessened all manner of injuries, minor and serious, incurred on the field of practice and play. Today most injuries are known to occur on the nation's sand lots, where training and play are not medically supervised.

Few coaches would be guilty of sending an injured boy in to play. But there are persons who would do just about anything to win a game, and to hell with the consequences. For the sake of the grand old game and the boys who play it, the power of veto over such coaches' desires should rest irrevocably with the team physician.—*Southwestern Medicine,* November, 1940.

President's Page

Christmas and the New Year

MY Sincere Wish to all members of the Michigan State Medical Society for a

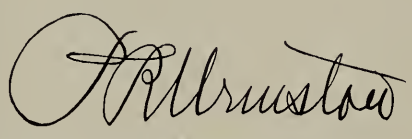
Most Happy Christmas Season!

May the New Year bring our doctors of medicine an abundance of health, vitality, and courage to perform cheerfully and well the daily tasks assigned to them.

May our profession wisely solve the grave problems—scientific, economic and sociologic—which face us as a group and as individual practitioners.

Finally, may Peace on earth be a blessing bestowed upon the world during 1941.

These are my heart-felt holiday wishes.



President, Michigan State Medical Society

EDITORIAL

THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coördinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

KEEPING STEP

▪ While development of contacts between the profession and the layman are at all times of importance, the present situation, politically and economically, makes it most necessary that every endeavor be made to acquaint our patients and their friends with a clear understanding of the part we are to play in the sociologic and economic revolution.

Whether or not you believe the old adage that a doctor is a poor business man, you certainly must admit that the doctor is a poor propagandist. In the old days when a man, a product, or a profession was judged by intrinsic worth alone we had nothing to fear. But, in these days of high pressure press agents, some of the easily swayed people believe the tradition and ethics of the medical profession should be scrapped like last year's spring hat.

In a move to remedy this impending situation the Council offered a resolution before the House of Delegates in September, and it was passed by the House, which provides for the establishment of a public relations activity in the executive office of the Michigan State Medical Society and for the employment of a specialist in public relations.

At the present time a search is being made for the right man but the general program is being developed without delay. If a member is called upon to discuss "socialized medicine" before a group, help will be provided in all conceivable forms. Of course, there are many other ways in which this new service will be used; such as, in press relations, contacts with groups interested in social, economic or legislative problems, and others. The physician will be on the firing line but there will be no scarcity of ammunition. This new activity will provide additional anti-aircraft batteries against the revolutionists who seek to supplant a system proved to be good with one which is hoped to be better but which we know will be worse.

"MEDICAL POLITICIAN"

▪ The reiteration of a commonly used phrase the other day occasioned the analysis of the scientific status of your officers. Perhaps you have called your councilor or other officer a "medical politician." By using this careless and ofttimes offending appellation you indicate a belief in your mind that these men are sacrificing their scientific advancement for political conquests.

There are twenty-one men in this group; one-third are certified by their specialty boards; two-thirds are members, either of the American College of Surgeons or of the American College of Physicians. They are divided about fifty-fifty between the specialists and the general practitioners. Every man is actively in the private practice of medicine. At least five of the men have published scientific articles.

If you still insist on calling these scientific gentlemen "medical politicians," remember that it is better for you to be led by "medical politicians" of your own choosing than to be governed by politicians, neither scientific nor chosen by you.

YOU AND YOUR BUSINESS

SEASON'S GREETINGS

In extending the Greetings of Christmas to every member of the Michigan State Medical Society, the officers and councilors review with gratification the accomplishments of the past year. Organized medicine in Michigan has kept pace with scientific advancement, while at the same time meeting and solving its ever-increasing social and economic problems.

Looking to the year 1941, a period of even greater service by the medical profession to the citizens of Michigan is anticipated—a service developing better health and prosperity to all, epitomized in the sincere Greeting "A Happy New Year."

RETURNS UNDER THE INTANGIBLES TAX LAW

Early in 1941 citizens of Michigan will receive forms for filing returns under the Intangibles Tax Law. Physicians are urged to refer to page 57 of the January, 1940, issue of THE JOURNAL, for a complete discussion on how the law affects them.

The item of greatest interest to physicians as far as this law is concerned is with regard to accounts receivable, which are included as taxable property. Of course, worthless accounts are exempt, but the State Tax Commission requires that such accounts must be charged off with no possibility of collection. Every account must be considered as all good or all bad—a portion of the account may not be charged off. It is advisable that physicians make a thorough study of all their accounts, *NOW*.

The tax also applies to bank accounts, after an initial exemption of $3,000; certain income-producing property including bonds, notes, mortgages, etc.

Physicians are invited to write the Executive Office, 2020 Olds Tower, Lansing, Michigan, if they have specific questions relative to the Intangibles Tax Law.

REMISSION OF DUES

Following approval by the M.S.M.S. House of Delegates of The Council's recommendation, the Executive Committee has ruled that the State Society dues for doctors of medicine, members of the Michigan State Medical Society, in active military duty away from their homes, may be remitted if recommended by the county medical society. This applies to 1941 dues.

COUNTY SECRETARIES' CONFERENCE

January 19, 1941 is the date of the annual County Secretaries' Conference. The meeting will be held in Lansing at the Olds Hotel beginning at 10:00 A.M., followed by Sunday dinner at 1:00 P.M. The afternoon session will be a joint meeting with the public health officers of the State, as in the past.

The morning session will be devoted to round-table discussions on Medical Preparedness, Michigan Medical Service, the Future in Legislation, and How to Make a County Medical Society More Influential.

Governor Murray D. VanWagoner will be speaker at the noon-day dinner.

Secretaries and executive secretaries of county medical societies are invited to attend and are urged to bring their Presidents, Presidents-elect, and other officers as well as members interested in organizational activity.

INSIST ON APPROVED PRODUCTS

Products advertised in the M.S.M.S. JOURNAL and displayed in the exhibits at Michigan State Medical Society conventions must in every respect conform to the requirements of the Councils and Committees of the American Medical Association.

Some firms which are detailing Michigan physicians have products which have not been presented to the A.M.A. for approval. A number of these firms have requested space in the M.S.M.S. JOURNAL and Exhibit, but have had to be refused.

Physicians will help their patients and their reputations if they insist on purchasing only Council-accepted products, and refer to the American Medical Association all firms which attempt to sell them unapproved equipment and supplies.

MICHIGAN MEDICAL SERVICE

THE continued successful conduct of the group medical care plan—Michigan Medical Service—sponsored by the medical profession of Michigan, indicates constant and sympathetic cooperation on the part of doctors. In addition to the establishment of a professionally controlled plan for prepayment of medical services *which will preclude government or commercial intervention in the practice of medicine,* the benefits to the doctor are prompt and equitable payments for services rendered. There is, likewise, the honor that accrues to the medical profession for its courage and farsightedness in providing a means whereby persons with limited incomes can avail themselves of necessary medical and surgical services.

Progress to Date

The acceptance of Michigan Medical Service on the part of the public is indicated by the enrollment (to October 31) of 90,396 subscribers—4,346 in the Medical Service Plan and 86,050 in the Surgical Benefit Plan. There is a steadily increasing interest in the full Medical Service Plan; in the months of September and October the number of subscribers to this more complete coverage almost tripled.

The enrollment represents the coöperation of 113 firms which were willing to assume the trouble and expense of collecting monthly subscriptions from the employees in order that the benefits of the program might be made available.

To date, 3,314 doctors of medicine are registered with Michigan Medical Service. The willingness on the part of doctors to render services for subscribers under the provisions of the medical service plan has been one of the outstanding results of Michigan Medical Service.

It is hoped that the doctors who have not yet sent in their Application for Registration will do so promptly in order that the full extent of the coöperation of the profession can be indicated to the public.

The services provided for subscribers is best shown by the $175,000 paid for medical and surgical care received by 4,307 patients. It is definitely evident that the medical service program is making it more possible than ever before for subscribers to obtain necessary services of doctors.

One out of every six doctors in Michigan has been paid through Michigan Medical Service for services to subscribers. The full Schedule of Benefits which is equivalent to the prevailing charges now made by doctors of medicine for patients in the income group enrolled in Michigan Medical Service has been paid for all services in each month.

Frequent Questions—Answered

A review of questions most frequently asked by doctors about Michigan Medical Service may serve to clarify further the basic procedures under Michigan Medical Service which have been outlined in previous articles.

Q. *What should I tell my patients who ask how they can enroll?*

A. It is necessary for subscribers to be enrolled in groups of *not less than ten.* The inquirer should contact Michigan Medical Service so that a presentation of the plan can be arranged at his place of employment (or at the place of employment of the person's husband). If the inquirer can not be enrolled with a group of employees, it may be possible to arrange for enrollment through a common interest group such as an association or fraternal society.

Q. *Should the patient who is a subscriber to the Medical Service Plan pay the first $5.00 charge directly to the doctor?*

A. No, the doctor will not be asked to assume this collection. The subscriber will be billed by Michigan Medical Service for the first $5.00 of services and should make the payment directly to Michigan Medical Service. The doctor will be paid by Michigan Medical Service whether or not the amount is collected from the patient.

Q. *May the subscriber be charged in addition to the payment from Michigan Medical Service?*

(A.) No—if the subscriber's income is below the limit of $2,000 annually for the individual or $2,500 for the husband and wife or family and the services received are benefits in the subscriber's certificate.

(B) Yes—if the subscriber's income is above the limits or if the subscriber receives services not provided in his certificate.

The statement sent with the check to the doctor will indicate when the subscriber falls in the latter classification. If the payment is not equivalent to the doctor's customary charge to the patient, he may bill the patient for the difference between the payment from Michigan Medical Service and his customary charge.

Q. *Are persons with incomes above the specified limits enrolled as subscribers?*

A. Yes. It has been necessary, in order to avoid discrimination among workers and to make it possible to encourage enrollment of employees in the lower income groups, to enroll a small percentage (approximately 5%) of the employees who earn more than the income limits. The doctor sends the Monthly Service Report to Michigan Medical Service and payment made by Michigan Medical Service is only a credit. As previously described, the doctor may charge the patient the difference between this payment and his customary charge to the patient.

It is suggested that no bill be sent to the patient until payment is received from Michigan Medical Service.

Q. *What will I be paid for my services to a subscriber?*

A. The amount of payment is determined by the Medical Advisory Board in accordance with the general level of benefits in the schedule of benefits which has been prepared merely as a guide for the authorization of payments.

A short listing of the benefits to indicate the general level may be obtained by any coöperating doctor, upon request.

Know Your Medical Service Program

In the near future, an additional set of material describing in full the provisions of Michigan Medical Service will be sent to all doctors of medicine in Michigan. In the meantime, any information desired may be obtained by writing to Michigan Medical Service, Washington Boulevard Building, Detroit, or by contacting the secretary of your county medical society.

Mail your Preparedness Questionnaire to the A.M.A. today!

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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

LOBAR PNEUMONIA DEATHS

As a result of serum and drug therapy, the median for lobar pneumonia deaths in 1939 as compared with the 1933-37 average has been moved on eight years, from age 47 to age 55. More than 350 lives were saved in 1939 by serum and drug treatment of pneumonia patients, according to an analysis of deaths by age groups made by the Division of Pneumonia.

The effectiveness of serum and drugs of the sulfonamide group has been shown repeatedly in experimental use; now for the first time it is demonstrated that their use in Michigan has been sufficiently general to affect the figures for the population as a whole.

For the five years from 1933 to 1937, the average number of lobar pneumonia deaths was 2,122. In the age groups from five to 49 where serum and drug are most effective, the reduction in deaths was 51 per cent compared with 13 per cent at the extremes of life. Had the 13 per cent reduction applied throughout all age groups, there would have been 1,844 deaths. Actually, lobar pneumonia deaths in 1939 totaled only 1,484. The saving of 360 lives not being otherwise explainable must commonly be credited to a general use of serum and drug treatment.

The old peak of lobar pneumonia deaths from age 35 to 55 disappeared in 1939. In the years from five to 45, the saving in life was 50 to 60 per cent of the five-year average. High school boys and girls no longer appear in the span of years encompassed by the middle two-thirds of lobar pneumonia deaths.

No figures are available as to the total number of patients treated with serum or drug in 1939. A new method of refinement has been developed for the serum produced in the Department of Health laboratories under a Commonwealth Fund grant. Old supplies of serum have been replaced with the new at 50 distributing centers. Serum is distributed free to physicians for types 1 and 2, 3, 5, 7 and 8.

Case reporting of lobar pneumonia is not an accurate indication of prevalence. However, both the seasons of 1938-39 and 1939-40 were light pneumonia years. For the four months since July, the 1939 and 1940 cases reported are as follows, with the 1939 figure given first: July 92, 131; August 102, 82; September 109, 99; October 147, 121. Additional cases probably will be added to the October report.

PERSONNEL CHANGES

Dr. F. J. Hill, director of the Mason-Manistee-Benzie Health Department, was to leave November 15 to become director of the bureau of preventable diseases in the North Dakota State Department of Health.

Dr. L. H. Gaston, director of the Sanilac County Health Department, left October 15 to become director of local health services in the Ohio Department of Health. A successor has not been named.

Dr. F. S. Leeder, director of the Branch County Health Department, left October 20 for five months of study and field work at the University of Toronto. In his absence, his duties will be carried on by Dr. M. R. Kinde, medical director of the Kellogg Foundation.

BLOOD TESTS OF DRAFTEES

Thirty thousand individual kits are being furnished by the Michigan Department of Health to draft board physicians for taking blood specimens of men called by selective service for medical examination. The kits will make unnecessary the use of syringes and consequently will eliminate sterilizing of equipment while specimens are being taken.

Kahn tests on specimens from all drafted men examined will be run in the Lansing laboratories of the Department, except those for Kent county, which will be done in the Grand Rapids laboratories. To handle peak loads as men are called up, the laboratories will run two shifts a day, seven days a week if necessary.

The individual kits for taking specimens include a four-gram vial, self-sealing gum stopper with membrane top, and 21-gauge antitoxin needle. In addition, 1,000 suction tube connections are being made up for draft board physicians. These consist of a connecting needle, glass filter piece with cotton protector, 12-inch tubing and mouthpiece. In use, the sterile needle is plunged through the stopper and then with the vial as handle, the needle is inserted in the desired vein. When suction is applied to the vial, blood is drawn with ease and speed.

As fast as kits are used in taking specimens, replacements will be made from the state laboratories.

BLOOD TESTS NUMBER 67,548

Laboratory tests for syphilis in Michigan Department of Health and registered laboratories totaled 67,548 in September. Of these 19,658 were done in the four state department laboratories at Lansing, Grand Rapids, Houghton and Powers, 47,890 in registered laboratories.

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FRACTURES AND TRAUMATIC SURGERY—Informal Course every week. Special Courses may be arranged.

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Doctor, remember these firms when you are in the market for pharmaceuticals, equipment or service. JOURNAL advertisers are selected; their products are approved. They help make it possible for the Publication Committee of your State Medical Society to send you such an outstanding scientific magazine as THE JOURNAL of the Michigan State Medical Society. Take a minute and tell the advertisers you saw their message in THE JOURNAL.

Calhoun County

The Calhoun County Medical Auxiliary held its opening meeting October 1, 1940 at the home of Mrs. Wendell Stadel. There were thirty-five present. Mrs. Keagle reported briefly on the State Convention. The chairman of the rummage sale committee reported a profit of $134.00. After the business session the ladies sewed for the Red Cross.

* * *

Genesee County

The regular meeting of the Woman's Auxiliary of the Genesee County Medical Society was held Wednesday, October 23, with Mrs. L. L. Willoughby, Mrs. A. W. Harper, Mrs. H. E. Randall and Mrs. C. E. Williams as hostesses for the day. The luncheon meeting was preceded by a board meeting at 11 o'clock. Mrs. W. W. Stevenson, program chairman for the day, presented Mrs. Lloyd Kirby and Mrs. C. Tyler Holmes who spoke on the four proposals to be considered in the fall elections.

* * *

Jackson County

The opening meeting of the Woman's Auxiliary of the Jackson County Medical Society met October 15, 1940 at the home of Mrs. C. D. Munro. Dinner was served to sixty-three members by Mrs. A. M. Shaeffer, chairman, and her efficient committee. The business meeting was conducted by the president, Mrs. G. R. Bullen. Mrs. M. D. Wertenberger, program chairman for the evening, introduced Dr. Wilfrid Haughey of Battle Creek, who spoke on the "Progress of Medicine."

* * *

Kalamazoo County

The first fall meeting of the Auxiliary of the Kalamazoo Academy of Medicine was held at the home of Mrs. R. J. Hubbell, October 15, 1940. The thirty-two members present enjoyed a coöperative dinner. Mrs. Leslie De Witt was in charge of the business meeting after which Mrs. R. G. Cook, past president and delegate to the State Convention, gave her report.

* * *

Kent County

The Kent County Woman's Auxiliary held a delightful luncheon meeting at the Women's City Club, October 9. Mrs. Guy DeBoer, the new president, presided. Mrs. John Rigterink gave a talk on her hobby "Button-Lore," which was most entertaining and instructive. Her collection is a splendid one and won first prize at the 1939 National Button Show. Mrs. William Butler, president-elect of the State Auxiliary, gave an interesting report on the State Convention.

* * *

Lapeer County

At the Woman's Auxiliary meeting held October 25 at the home of Mrs. H. B. Zemmer, dinner was served to eighteen members. The new officers are: President, Mrs. David Burley, Almont; Vice President, Mrs. F. R. Hanna, Lapeer; Secretary-Treasurer, Mrs. D. J. O'Brien, Lapeer.

* * *

Monroe County

The Auxiliary of the Monroe County Medical Society met at the home of Mrs. Robert Williams in October. Plans were made to begin a sewing project for the Red Cross. After the business meeting refreshments were served.

* * *

Saginaw County

Mrs. Dale E. Thomas of Saginaw was hostess to the Saginaw County Medical Auxiliary Tuesday evening, October 15, 1940. The group decided to place *Hygeia* in rural schools throughout the county and made plans to assist with Red Cross work. Mrs. George W. Francis reviewed the book "The Amazing Madam Jumel." Refreshments were served with Mrs. Robert Jaenichen and Mrs. Lloyd C. Harvie assisting at the tea table.

* * *

St. Clair County

Twenty-one members and guests of the Woman's Auxiliary of the St. Clair County Medical Society attended a dinner meeting in St. Clair Inn, November 5. After dinner the members were guests of Mrs. Harry C. Wass in her new home.

* * *

Van Buren County

The October meeting was held on the eighth at the home of Mrs. Edward Hall, following a joint dinner meeting with the husbands at the Methodist Church in Hartford. Regular reports were given and a member from each town reported on the progress of the project of placing copies of *Hygica* in the local school and public library. Plans were made for a "health essay" contest to be sponsored by the Auxiliary and to be offered in the spring in the public schools. Reports of the state meeting were given by Mrs. Edwin Terwilliger and Mrs. W. R. Young, delegates, and by Mrs. Charles Ten Houten who attended some of the sessions.

* * *

Wayne County

The first meeting of the 1940-1941 season was held Friday, October 18, 1940, at Botsford Tavern. Luncheon was served at one o'clock, after which the guest of honor, Dr. Allan McDonald, president of the Wayne County Medical Society, gave a short address. Dr. MacDonald urged each member to encourage "her doctor" to attend the meetings of the Medical Society during the year. He stressed the importance of a united membership during these times of uncertainty and difficulty. At the regular business session following the luncheon, plans for the coming year were discussed. Report of the organization of a Red Cross unit at the Society's headquarters was received with interest, and members pledged their support to this new project. At the conclusion of the business session, the Program Chairman, Mrs. A. Duane Beam, presented Mrs. Ann Little Brandes, who gave an address on "The Domestic Help Problem." Mrs. Brandes, who is a field worker for the Michigan State Employment Service and has had wide experience in this field, gave an interesting and instructive talk.

* * *

WOMAN'S AUXILIARY BULLETIN

The Woman's Auxiliary of the American Medical Association is making a special effort at this time to awaken wide-spread interest in its activities, by increasing the number of readers of the *Bulletin,* successor to the News Letter which for many years has kept the officers and board members acquainted with the progress of the Auxiliaries of all the States. It is published quarterly and contains reports of conventions, places of work, inspirational messages from leaders, and news of the hour in the medical world.

The Fall issue contains the inaugural address of Mrs. V. E. Holcombe, the National Auxiliary president; also a message to women from Dr. Van Etten, president of the American Medical Association. Many other interesting items are to be found within its forty pages.

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✶ COUNTY AND PERSONAL ACTIVITIES ✶

Oliver B. McGillicuddy, M.D., Lansing, addressed the Livingston County Medical Society on Friday, November 1 on "Sinusitis" illustrated with lantern slides.

* * *

Secretary L. Fernald Foster, M.D., Bay City, addressed the Lapeer County Medical Society and its Woman's Auxiliary on the subject of "Michigan Medical Service" at Lapeer on November 8.

* * *

Jerome W. Conn, M.D., Ann Arbor, is the author of the article "The Spontaneous Hypoglycemias" which appeared in the November 16, 1940, issue of *The Journal of The American Medical Association.*

* * *

The Reader's Digest is now published in the Spanish language, for distribution throughout Latin America. Thus, our neighbors "south of the border" are being given a further opportunity to learn more of the United States and its people.

* * *

Doctor, remember your particular friends, the exhibitors, at your annual convention, when you have need of equipment, appliances, medical supplies, and service. Here are ten of the firms which helped make the 1940 Convention such a success:

Zimmer Manufacturing Company, Warsaw, Indiana
John Wyeth & Brother, Inc., Philadelphia
Westinghouse X-Ray Company, Inc., Detroit
Wall Chemicals Corporation, Detroit
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U. S. Standard Products Company, Woodworth, Wisconsin
Charles C Thomas, Publisher, Springfield, Illinois
Frederick Stearns & Company, Detroit
E. R. Squibb & Sons, New York
Smith, Kline & French Laboratories, Philadelphia

Walter M. Bartlett, M.D., Benton Harbor, recently presented a paper before the Aero Medical Association on its 12th Annual Meeting in Memphis, Tennessee, on the subject "Combined Electrocardiography, Stethography and Cardioscopy in the Selection of Pilots."

* * *

Frederick B. Miner, M.D., Flint, has been appointed Chairman of the Goiter Prevention Committee of the American Public Health Association. Doctor Miner is Chairman of the Iodized Salt Committee of the Michigan State Medical Society.

* * *

Henry E. Perry, M.D., Newberry, Past-President of the Michigan State Medical Society, attended the meeting of the Executive Committee of The Council of the MSMS on November 10, in Lansing. Doctor Perry was on his way to Lakeland, Florida, where he spends the winters.

* * *

The members of the Michigan State Medical Society extend to Wilfrid Haughey, M.D., Battle Creek, Councilor of the 3rd District and Secretary of the Calhoun County Medical Society, their deepest sympathy in the loss of his mother who passed away on October 26, 1940.

* * *

Shiawassee County on January 1, 1941, will become the sixty-third county in Michigan to have full-time public health service. The Board of Supervisors approved plans for a county unit last summer, and arrangements have been made and money appropriated to start the Shiawassee County Health Department the first of the year.

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The October, 1940, issue of the Muskegon County Medical Society Bulletin was dedicated to George L. LeFevre, M.D., Muskegon, Past-President of the Michigan State Medical Society.

* * *

The Michigan Society of Obstetricians and Gynecologists held its regular meeting on November 5, 1940, at the Pantlind Hotel in Grand Rapids. Among the speakers on the program were Paul Willits, M.D., Leon Bosch, M.D., Henry Clapp, M.D., Harrison S. Collisi, M.D., and J. Duane Miller, M.D., all of Grand Rapids. Russell W. Alles, M.D., and Harold C. Mack, M.D., both of Detroit, are President and Secretary respectively of the Society.

* * *

The Radio Committee of the Washtenaw County Medical Society (Hugh M. Beebe, M.D., Chairman, S. W. Donaldson, M.D. and Lester J. Johnson, M.D.) is coöperating with Professor Abbott of the University of Michigan whereby students at the University develop and present the programs under the direction and auspices of the County Medical Society. The programs cover a 15 minute period every Saturday, 5:30 P.M. over Station WJR.

* * *

The State Board of Registration in Medicine states that at the meeting of the Board held October 8, 1940, the medical license of Eugene Williams, M.D., formerly of Hartford, Michigan, was suspended until the June, 1941, meeting of the Board.

At the same meeting, the Board discontinued the suspension of the license of Franklin T. Bower, M.D., formerly of Detroit, and placed Doctor Bower on probation for six months stipulating that he must report monthly by letter to the Secretary of the Board.

* * *

Irvin Abell, M.D., of Louisville, Kentucky, former president of the American Medical Association, was appointed on September 19 by President Roosevelt to head the Health and Medical Committee of the Council on National Defense, to survey and coördinate the medical resources of the country in the interests of national defense. Clarence D. Selby, M.D., Detroit, member of the M.S.M.S. Industrial Health Committee, has been appointed chairman of the subcommittee on Industrial Medicine.

* * *

The Toledo Academy of Medicine announces its 16th Annual Postgraduate Course which will be held December 11, 12, and 13 in the Academy Building, 15th at Monroe, Toledo, Ohio. The guest lecturer will be A. C. Ivy, M.D., Chicago, who will discuss the following important subjects: Physiological Changes in Pregnancy; Physiology of Labor, Onset and Mechanism; The Liver and Biliary Tract; Water Balance in Health and Disease, Acidosis and Alkalosis; Advance of Diagnosis and Therapeutic Interest Regarding the Alimentary Tract; Hypertension; Respiration and Pathological Conditions; Vitamins in Diagnosis and Treatment and "Interpretation of Some of the Patient's Symptoms."

For full details, write The Toledo Academy of Medicine, Monroe at 15th, Todelo, Ohio.

* * *

CORRECTION

In "Impediment to Circulation" by Charles C. Macklin, M.D., in the October issue of THE JOURNAL the sentence beginning in the eighth line under the heading "Clinical Importance" on page 757 should have read: Here the same two adverse conditions (1) straining and weakening of the extended alveolar bases, and (2) the creation of a positive pressure gradient from alveolus to vascular sheath, would seem to be operative.

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MICHIGAN PATHOLOGICAL SOCIETY

The fall meeting of the Michigan Pathological Society was held at Harper Hospital, Detroit, on October 12. Cases were demonstrated on "Pathology of the Hematopoietic System," by Drs. S. E. Gould, C. H. Binford, F. W. Hartman, Lester Hoyt, Dorothy Sundberg, D. H. Kaump, G. Steiner, A. S. Giordano and D. G. Christopoulos. An address by Dr. Russell Haden, of Cleveland, on the subject "Pathologic Hemorrhage," constituted the principal part of the program. Forty-one were in attendance. The meeting was presided over by Dr. W. L. Brosius, President.

The next meeting will be the annual meeting and will be held on December 14, at the University Hospital, Ann Arbor, where the Society will be guests of Dr. C. V. Weller and his associates in the Department of Pathology. The subject of the Scientific Program for the annual meeting is "Syphilis in General."

* * *

ADVANCED COURSE IN SURGICAL ANATOMY

An advanced course in Surgical Anatomy will be given at the University of Michigan Medical School during the second semester—February 12 to May 28, 1941. The classes will meet Wednesdays 1:00-10:00 P.M. each week, under the instruction of Professor Rollo E. McCotter. (In 1942, the course will be given on Thursdays).

Dissection of specific regions of the body as preparation for surgical specialties or investigative work will comprise the course. If time permits and suitable material is available the study may be extended to the microscopic and developmental anatomy of the region. An informal lecture the first part of the afternoon will be followed by dissection of the part under consideration. Graduate or postgraduate credit can be arranged. Fee $25.

For further information, address: Department of Postgraduate Medicine, University of Michigan, Ann Arbor, Michigan.

* * *

COUNCIL AND COMMITTEE MEETINGS

1. **Sunday, November 3, 1940**—2:00 p.m.—Syphilis Control Committee, Lansing
2. **Sunday, November 3, 1940**—12:00 noon—Tuberculosis Control Committee, Battle Creek
3. **Wednesday, November 6, 1940**—2:00 p.m.—Child Welfare Committee, Detroit
4. **Sunday, November 10, 1940**—2:00 p.m.—Executive Committee of The Council, Lansing
5. **Sunday, November 10, 1940**—2:00 p.m.—Heart & Degenerative Diseases Committee—Lansing
6. **Wednesday, November 13, 1940**—12:00 noon—Iodized Salt Committee, Detroit
7. **Wednesday, November 13, 1940**—5:00 p.m.—Legislative Committee, Lansing
8. **Thursday, November 14, 1940**—5:30 p.m.—Mental Hygiene Committee, Detroit
9. **Friday, November 15, 1940**—11:30 a. m.—Maternal Health Committee. Detroit
10. **Saturday and Sunday, January 11 and 12, 1941**—Midwinter Meeting of The Council, Detroit.

* * *

COUNTY SOCIETY MEETINGS

Bay—Wednesday, November 13—Wenonah Hotel, Bay City.

Berrien—Thursday, November 7—Hotel Vincent, Benton Harbor—Speaker: M. Herbert Barker, M.D., Chicago on "Cyanates in the Treatment of Hypertension."

Calhoun—Tuesday, November 12—Hart Hotel, Battle Creek—Speaker: R. B. Malcolm, M.D., Illinois Research Hospital on "Surgical-Pathological Conditions of the Neck." Monday, November 18—Hart Hotel, Battle Creek—Speaker: Winthrop Morgan Phelps, M.D., Baltimore.

Dickinson-Iron—Thursday, October 3—Program: Discussion of scientific papers presented at State Meeting, Detroit, plus two-reel movie on post encephalitic Parkinsonism and the Therapeutic Effects of the new drug "Bellabugara." Thursday, November 7—Crystal Falls Inn, Crystal Falls—Program arranged by Harry Haight, M.D. of Crystal Falls.

Ionia-Montcalm—Tuesday, November 12—Belding—Speaker: A. M. Hill, M.D., Grand Rapids on "The Care of the Premature Infant." V. L. VanDuzen, M.D. of Belding demonstrated his new incubator.

Kalamazoo—Tuesday, November 19—Kalamazoo—Speaker: Cameron Haight, M.D., Ann Arbor on "Recent Developments in Thoracic Surgery."

Kent—Tuesday, November 12—Pantlind Hotel, Grand Rapids—Speaker: George H. Belote, M.D., Ann Arbor on "Recent Developments in Treatment of Some of the Common Dermatoses."

Lapeer—Friday, October 18—Lapeer—Speaker: Wm. J. Cassidy, M.D. of Detroit on "Surgical Procedures."

Muskegon—Friday, October 25—Occidental Hotel, Muskegon—Speakers: Robert J. Douglas, M.D., and James L. Gillard, M.D., of Muskegon on "The Male Climacteric" and "The Female Climacteric" respectively. Friday, November 15—Occidental Hotel, Muskegon—Speaker: Robert E. Lee, M.D., Chicago on "Ambulatory Treatment of Varicosities and Associated Pathology.

St. Clair—Tuesday, November 12—Harrington Hotel, Port Huron—Speaker: Wm. J. Cassidy, M.D., Detroit on "Surgery."

St. Joseph—Thursday, November 14—Constantine Hotel, Constantine—Speaker: Martin Botts, M.D., on "Congenital Anomalies" illustrated.

Shiawassee—Thursday, November 14—Memorial Hospital, Owosso—Business meeting.

Washtenaw—Tuesday, November 12—Michigan Union, Ann Arbor—Speaker: Richard H. Freyberg, M.D., Ann Arbor on "Treatment of Chronic Arthritis."

NEW COUNTY MEDICAL SOCIETY OFFICERS

Berrien County—
President—A. F. Bliesmer, M.D., St. Joseph
Vice President—Fred Henderson, M.D., Niles
Secretary—Richard Crowell, M.D., St. Joseph
Delegate—Don W. Thorup, M.D., Benton Harbor
Alternate Delegate—Noel J. Hershey, M.D., Niles.

Monroe County—
President—Vincent L. Barker, M.D., Monroe
Vice President—W. A. Smith, M.D., Petersburg
Secretary-Treasurer—Florence Ames, M.D., Monroe
Directors—J. J. Siffer, M.D., and L. C. Blakey, M.D., Monroe
Censor—C. J. Golinvaux, M.D., Monroe
Delegate—D. C. Denman, M.D., Monroe
Alternate Delegate—J. H. McMillin, M.D., Monroe.

Shiawassee County—
President—Walter S. Shepherd, M.D., Owosso
Vice President—E. R. McKnight, M.D., Owosso
Secretary-Treasurer—Richard J. Brown, M.D., Owosso
Delegate—I. W. Greene, M.D., Owosso
Alternate Delegate—L. F. Bates, M.D., Durand.

DISTRICT MEETINGS

The Seventh District Meeting was held in Marlette on Thursday, November 7, with Councilor T. E. DeGurse, M.D. presiding. Roy C. Perkins, M.D. of Bay City, Councilor of the Tenth District, spoke on "Organizational Activities of the State Society." Executive Secretary Burns spoke on "Medical Welfare" and on "Michigan Medical Service;" Secretary L. Fernald Foster, M.D. presented "Necessary Amendments to the Afflicted Child Act;" and President P. R. Urmston, M.D. spoke on "Military Preparedness." Guests of honor were Councilors Ray S. Morrish, M.D. of Flint; O. O. Beck, M.D. of Birmingham and W. E. Barstow, M.D. of St. Louis.

The Ninth District Meeting was held at the Park Place Hotel, Traverse City, Friday, November 15, with Councilor E. F. Sladek, M.D., presiding. Secretary L. Fernald Foster, M.D. presented "Organizational Activi-



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ties" and "Medical Preparedness;" Editor Roy Herbert Holmes, M.D. Muskegon spoke on the "Afflicted Child Program," and Executive Secretary Wm. J. Burns spoke on "Medical Welfare" and "Michigan Medical Service."

The Tenth District Meeting was held at Grayling on Thursday, November 28, with Councilor Roy C. Perkins, M.D. presiding. Secretary L. Fernald Foster, M.D. spoke on "Medical Legislation and Other Activities of the State Society;" E. F. Sladek, M.D., Traverse City presented "Problems with the Afflicted Child Law;" Executive Secretary Burns spoke on "Medical Welfare;" and President P. R. Urmston, M.D. outlined "Medical Preparedness."

The Eleventh District Meeting was held at the Century Club, Muskegon, Friday, November 29, with Councilor Roy Herbert Holmes, M.D. presiding. A. S. Brunk, M.D., Detroit, gave a progress report on "Michigan Medical Service;" Wilfrid Haughey, M.D. of Battle Creek spoke on the "Afflicted Child;" and Secretary L. Fernald Foster, M.D. outlined "Organizational Activities of the State Society."

* * *

Case Postponed Indefinitely—According to an announcement issued in Washington on October 17 by United States Attorney Edward M. Curran, Justice James W. Morris, who is presiding in Criminal Court No. 2 of the District Court, disqualified himself from sitting on the case because of his former connection with the Justice Department as assistant attorney general. Justice F. Dickinson Letts, now presiding in Court No. 1, is in the middle of a first degree murder case and has a heavy assignment for the next few weeks. "Since no third criminal court is available at the present time," said United States Attorney Edward M. Curran, "I have taken the case off the assignment and it will be set down for trial in the future on a date agreeable to both the government and the defense."

This postponement will release the officials of the Association, therefore, to a continuation of their work in the headquarters office and in other capacities so essential at the present time.—J.A.M.A., Oct. 26, 1940.

* * *

Secretaries from thirty-one of the fifty-five county medical societies of Michigan attended the Secretaries' Conference in Detroit on September 25 to hear Dwight Anderson, LL.B., Director of the Public Relations Bureau of the Medical Society of the State of New York. Mr. Anderson's subject was "The War of Ideas."

Among the secretaries present were. A. B. Gwinn, M.D., Hastings; L. Fernald Foster, M.D., Bay City; Wilfrid Haughey, M.D., Battle Creek; T. Y. Ho, M.D., St. Johns; E. B. Andersen, M.D., Iron Mountain; John S. Wyman, M.D., and Sara Burgess of Flint; E. S. Oldham, M.D., Breckenridge; A. W. Strom, M.D., Hillsdale; R. J. Himmelberger, M.D., Lansing; J. J. McCann, M.D., Ionia; Horace W. Porter, M.D., Jackson; Hazel R. Prentice, M.D., Kalamazoo; Frank L. Doran, M.D., Grand Rapids; H. M. Best, M.D., Lapeer; H. C. Hill, M.D., Howell; D. Bruce Wiley, M.D., Utica; Wm. S. Jones, M.D., Menominee; Harold H. Gay, M.D., Midland; Florence Ames, M.D., Monroe; W. H. Barnum, M.D., Fremont; A. F. Litzenburger, M.D., Boyne City; John S. Lambie, Birmingham; C. G. Clippert, M.D., Grayling; D. C. Bloemendaal, M.D., Zeeland; J. H. Burley, M.D., Port Huron; E. W. Blanchard, M.D., Deckerville; E. C. Swanson, M.D., Vassar; Charles Ten Houten, M.D., Paw Paw; R. K. Ratliff, M.D., Ann Arbor; and Gaylord S. Bates, M.D., Detroit.

The following county presidents were also present: C. A. E. Lund, M.D., Middleville; George R. Goering, M.D., Flint; D. J. O'Brien, M.D., Lapeer; Robert Ballmer, Midland; and C. W. Colwell, M.D., Flint, president-elect, Genesee County.

Approximately forty guests from all parts of Michigan also were present.

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IN MEMORIAM

Jacob Meyer Berris, of Detroit, Michigan, was born June 18, 1896, in Toronto, Canada, and was graduated from the Detroit College of Medicine and Surgery in 1917. Following graduation he did post-graduate work in the East and then established himself in practice in Detroit. During the influenza epidemic of 1919-20, he was called to Boston by the Public Health Service to help establish emergency hospitals. While in the East, he became interested in physiotherapy as applied to disease. On his return to Detroit, he investigated the value of fever therapy in medical treatment. He was one of the first men in Michigan to adopt artificial fever therapy and was instrumental in the establishment of the fever therapy department in Grace Hospital. With his characteristic energy and imagination, a number of his later years were spent in the investigation of the value of refrigeration therapy for cancer and other diseases. He contributed numerous monographs to the literature on both therapeutic approaches. Doctor Berris died August 8, 1940.

L. Irving Condit, of Detroit, Michigan, was born June 20, 1885, in Minneapolis, Minn., and was graduated from Marquette University Medical School in 1912. He served as an interne at the Northern Pacific Hospital at Missoula, Montana and practiced for one year in Wilber, Washington. Dr. Condit came to Detroit in 1915. His hospital affiliations were in the department of surgery of Receiving, St. Mary's and Harper. During the World War he was commissioned as a Lieutenant and assigned to the training camp at Fort Benjamin Harrison. Subsequently he went to France with the 86th Division. In 1919 he was honorably discharged from the Medical Corps, as a Captain. Dr. Condit's interest was largely in traumatic surgery. He died September 24, 1940.

Thomas W. Ferguson, of Detroit, Michigan, was born in 1876 at Smith Falls, Ontario and was graduated from Trinity College, Toronto, Ontario, Canada in 1901. Dr. Ferguson came to Detroit in 1906 and entered private practice. He died September 24, 1940 after a long illness.

Douglas L. Gordon, of Detroit, Michigan, was born January 10, 1876 in Alymer, Quebec, was graduated from the Michigan College of Medicine in 1900 and thereafter attended the New York Post-graduate School. He passed the examination for the Department of Charities and was House Officer at Blackwell Island and the Alms House Hospital. After this service he trained at the Mothers' and Babes' Hospital and finally at the Lying-in Hospital. In 1902 he returned to Detroit and entered private practice, in which he continued until his death. Doctor Gordon died August 28, 1940.

Spencer D. Guy, of Lansing, Michigan, born November 19, 1892 in Benton Harbor, Michigan, was graduated from Rush Medical School in 1917, and interned at St. Joseph's Hospital, Chicago. He served as first lieutenant in the United States Army Medical Corps at Camp Jackson, S. C., during the World War. Dr. Guy began practice in Coloma, Michigan and came to Lansing, Michigan in 1928, where he practiced until the time of his death, October 26, 1940.



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S. T. Johnston, M.D.
R. C. Norton, M.D.
G. R. Curless, M.D.
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Jacob Levitt, of Detroit, Michigan, was born July 14, 1897 in Kovno, Lithuania and was graduated from the Detroit College of Medicine in 1921. He served his internship at the Passavant Hospital in Pittsburgh, Pa. In addition to his general professional duties, he was physician for the Chadsey High School and the Boys' Club of Detroit. He died on October 4, 1940.

Charles D. Pullen, of Mt. Pleasant, Michigan, was born on August 20, 1864 in Allegan, Michigan and was graduated from the University of Michigan Medical School in 1892. He located in Mt. Pleasant where he built up a large medical practice. He availed himself of every postgraduate opportunity, taking courses in New Orleans, Chicago and New York City. In addition to his general professional duties, he was medical attendant at the Indian school in Mt. Pleasant for ten years and served for five years as secretary of the United States pension examining board. He also served on the Mt. Pleasant Board of Education for ten years, and during the World War was an army captain. In 1935 he was elected to the State Legislature. He died August 27, 1940.

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

OFFICE UROLOGY with a section on Cystoscopy. By P. S. Pelouze, M.D., Assistant Professor of Urology, University of Pennsylvania; Consulting Urologist, Delaware County Hospital; Special Consultant to United States Public Health Service; Member of Board of Directors, American Social Hygiene Association and American Neisserian Medical Society. With 443 illustrations, 19 of them in color. Philadelphia and London: W. B. Saunders Company, 1940. Price: $10.00.

This is the type of book which should put many dollars into the general practitioner's pocket as well as aid him a great deal in caring for his patient with a urological condition. The volume is very complete and simply written and every procedure is described in the utmost detail. This book is the nearest thing to a correspondence course in office urology that could be imagined. The illustrations are well chosen and the diagrams distinct and clear and instructive. It is an easy book to recommend to any practicing physician.

MANAGEMENT OF THE CARDIAC PATIENT. By William G. Leaman, Jr., M.D., F.A.C.P., Assistant Professor of Medicine in Charge of the Department of Cardiology, Woman's Medical College of Pennsylvania, Philadelphia. Cardiologist, Woman's College, Memorial, Northeastern Hospitals and Philadelphia Hospital for Contagious Diseases. Consulting Cardiologist, St. Luke's and Children's Hospital, Philadelphia. Assistant Visiting Physician, Philadelphia General Hospital. Chairman, Committee on Diseases of the Heart and Circulation, Philadelphia County Medical Association; Fellow, College of Physicians of Philadelphia. 225 original illustrations two of which are in color. Philadelphia, London, Montreal: J. B. Lippincott Company. Price: $6.50.

This very well written book covers, in sufficient detail, the management of the cardiac patient. The subject is taken up under such heads as "Functional Heart Disease," "Rheumatic Heart Disease" (which is an especially well written chapter), "Cardiac Arrythmias," etc. It is well illustrated and should be helpful to any physician.

THE 1940 YEARBOOK OF RADIOLOGY. Edited by Charles A. Waters, M.D., Associate in Roentgenology, Johns Hopkins University; Assistant Visiting Roentgenologist, Johns Hopkins Hospital. Associate Editor, Whitmer B. Firor, M.D., Assistant in Roentgenology, Johns Hopkins University; Assistant in Roentgenology, Johns Hopkins Hospital. Therapeutics Edited by Ira I. Kaplan, B.Sc., M.D., Director, Radiation Therapy Department, Bellevue Hospital, New York City; Associate Radiologist, Lenox Hill Hospital, New York City; Clinical Professor of Surgery, New York University Medical College. Chicago: The Year Book Publishers, Inc., 1940. Price: $5.00.

The authors have thoroughly reviewed the literature and selected the most interesting and practical cases which are thoroughly discussed and adequately illustrated. The therapy section summarizes the advancement made in this country since the foreign literature is very meagre. The editorial comments by the authors are especially interesting.

METHODS FOR DIAGNOSTIC BACTERIOLOGY. A Complete Guide for the Isolation and Identification of Pathogenic Bacteria for Medical Bacteriology Laboratories. By Isabelle G. Schaub, A.B., Assistant in Bacteriology, Department of Pathology and Bacteriology, The Johns Hopkins University School of Medicine and M. Kathleen Foley, A.B., Bacteriologist in Charge of the Diagnostic Bacteriological Laboratory of the Medical Clinic, The Johns Hopkins Hospital, Baltimore. St. Louis: The C. V. Mosby Company, 1940. Price: $3.00.

This book is based on the material used for training interns, medical students and student technicians in diagnostic bacteriology at Johns Hopkins. The material is all practical and of definite value to anyone interested in the technic of bacteriological investigation in the laboratory.

SYNOPSIS OF MATERIA MEDICA, TOXICOLOGY, AND PHARMACOLOGY for Students and Practitioners of Medicine. By Forrest Ramon Davison, B.A., M.Sc., Ph.D., M.B., Assistant Professor of Pharmacology in the School of Medicine, University of Arkansas, Little Rock. With 45 illustrations, including 4 in color. St. Louis: The C. V. Mosby Company, 1940. Price: $5.00.

A condensation of almost all practical use and abuse of drugs. It is splendidly outlined and arranged for easy location of information. A decidedly useful book for the general practitioner.

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CLINICAL UROLOGY. By Oswald Swinney Lowsley, A.B., M.D., F.A.C.S., Director of the Department of Urology (James Buchanan Brady Foundation) of the New York Hospital and Thomas Joseph Kirwin, M.A., M.S., M.D., F.A.C.S, Attending Surgeon of the Department of Urology (James Buchanan Brady Foundation) of the New York Hospital. Drawings by William P. Didusch. Two volumes. Baltimore: The Williams & Wilkins Company, 1940. Price: $10.00.

This two-volume textbook is primarily intended for medical students and general practitioners and is most complete and yet is simply written. Beginning with history taking and physical examinations it covers the entire field of urology from a clinical standpoint. It is profusely illustrated making it almost an atlas. Operative procedures are exceptionally well described and pictorially demonstrated.

BACILLARY AND RICKETTSIAL INFECTIONS. Acute and Chronic. A textbook. Black Death to White Plague. By William H. Holmes, M.D., Professor of Medicine, Northwestern University Medical School; Chairman, Department of Medicine, Passavant Memorial Hospital, Chicago. New York: The Macmillan Company, 1940. Price: $6.00.

The author has adapted his lectures to his students so as to provide not only the factual data regarding diseases which come in this classification but also to provide the proper background for the understanding of the present day knowledge and problems yet to be faced. In order to fully cover these conditions he has sacrificed illustrations and used an unattractive size of type. The use of many subtitles aids considerably in overcoming this physical disadvantage. The presentation of material is more engaging than the usual fiction story. Under each heading the development of the subject vividly portrays the accumulation of the present day knowledge. For absorbing scientific reading this book is enthusiastically recommended.

CONGENITAL SYPHILIS. By Charles C. Dennie, B.S., M.D., Professor of Dermatology, University of Kansas Medical School, Kansas City, Kansas; Chief of the Department of Dermatology and Syphilology of Bell Memorial Hospital, Kansas City, Kansas; General Hospital and Children's Mercy Hospital, Kansas City, Missouri; Visiting Dermatologist to Research Hospital and St. Luke's Hospital, Kansas City, Missouri and Sidney F. Pakula, B.S., M.D., Visiting Pediatrician to Children's Mercy Hospital, Kansas City General Hospital, Alfred Benjamin Clinic and Menorah Hospital, Kansas City, Missouri. Illustrated with 133 engravings. Philadelphia: Lea and Febiger, 1940. Price: $8.00.

At first thought this would be considered a highly specialized monograph but because of the unlimited clinical manifestations of this disease it is a general practitioner's book. The descriptions, both verbal and illustrative are splendidly executed and the management of these patients is dealt with most practically. It is highly recommended as a reference book.

DOCTOR COLWELL'S 1941 DAILY LOG. Champaign: Colwell Publishing Company, 1940. Price: $6.00.

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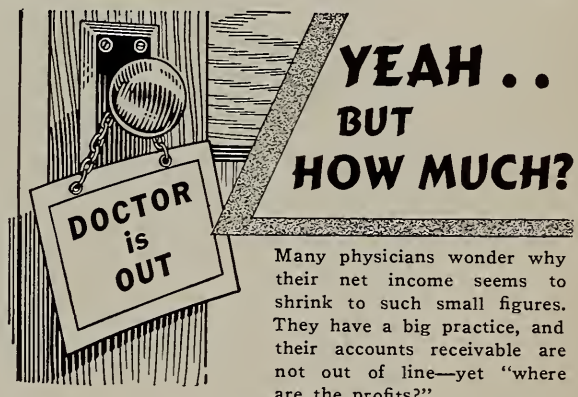
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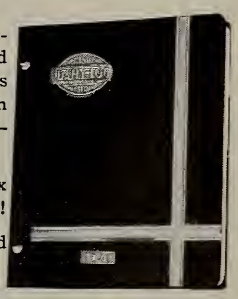
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SEX HORMONE THERAPY

The Nebraska State Medical Journal (March, 1940) carries an article, a paper read by R. L. Schaefer, M.D., and D. K. Kitchen, M.D., of Detroit, Michigan, on the use of "Anterior Pituitary-like Sex Hormone Therapy." After describing twenty-five cases, mostly of adiposogenital pituitarism exhibiting various effects of this lack of hormone secretion, they emphasize the paramount importance of early diagnosis and therapy.

"Theoretically one might conclude that to allow a continued lapse of time without therapy to patients who are obviously gonadally immature does nothing more than to continue to deprive that individual of a maturing factor that was perhaps very inadequate in utero or in the earlier years of life.

"Of greater value at the present time is the careful consideration of the history and physical findings summarized above as a method of diagnosing gonadal immaturity due to pituitary failure.

"We are desirous of stressing the importance of instituting therapy *when* the diagnosis of gonadal immaturity is made.

"Of profound importance in the attempt to mature the gonads is the amount of Antuitrin-S administered. The principles regarding dosage of this hormone differ perhaps in no way from the generalities regarding dosage in ordinary drug therapy. The dosage is enough only when it produces maturity comparable with the age of the patient.

"Arbitrarily one might begin with from 500 to 1,000 rat unit per week. Negative results over a period of two or three weeks is a manifest indication for the dosage to be doubled.

"A similar double dosage level should be employed at such intervals until development is apparent.

"Quite likely in the majority of instances, at least several months' therapy is required. It would seem from this series that if anterior pituitary-like sex therapy is employed in adequate amounts over an adequate period of time to effect maturity, the incidence of recurrence is indeed small."

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